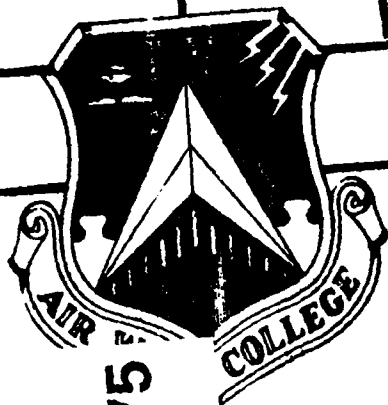# AIR WAR COLLEGE

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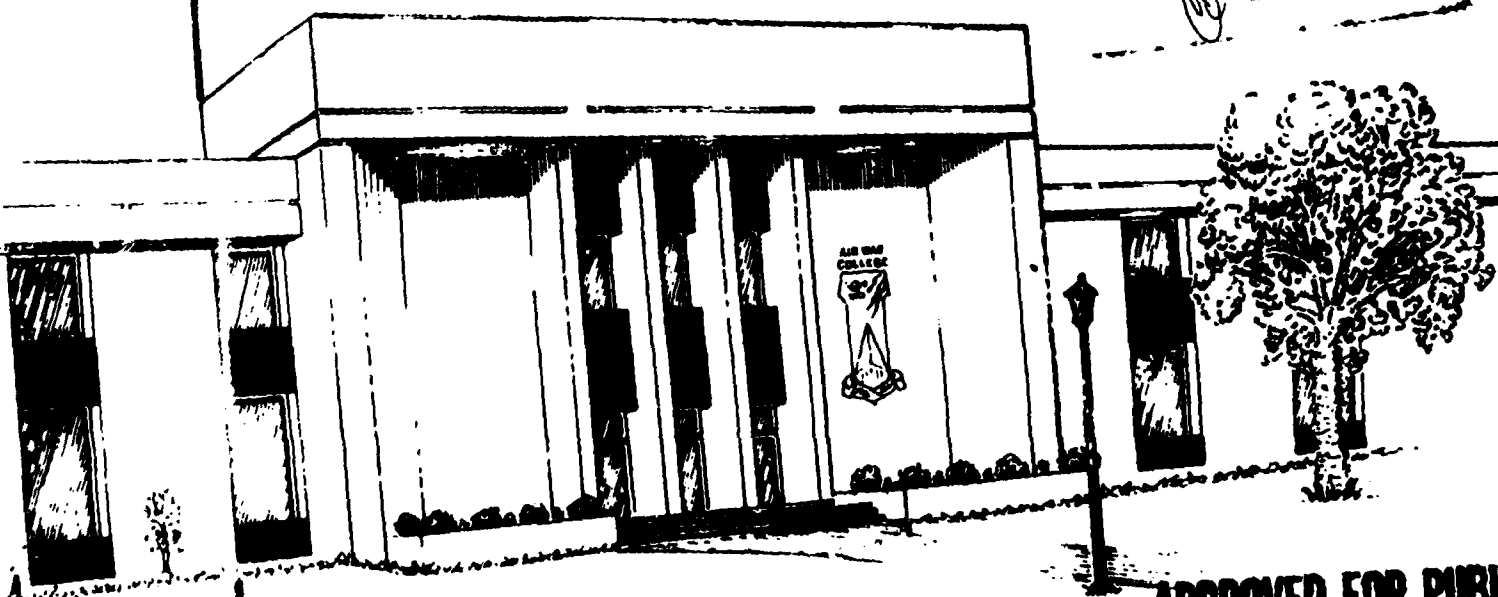
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EXECUTIVE SELF-ASSESSMENT AND DEVELOPMENT
IN THE UNITED STATES AIR FORCE

LIEUTENANT COLONEL TODD I. STEWART

1989

AIR UNIVERSITY
UNITED STATES AIR FORCE
MAXWELL AIR FORCE BASE, ALABAMA

AIR WAR COLLEGE
AIR UNIVERSITY

EXECUTIVE SELF-ASSESSMENT AND DEVELOPMENT IN THE UNITED STATES AIR FORCE

by

Todd I. Stewart
Lieutenant Colonel, USAF

A DEFENSE ANALYTICAL STUDY SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE CURRICULUM

REQUIREMENT

Advisor: Dr. Barton J. Michelson

MAXWELL AIR FORCE BASE, ALABAMA

May 1989

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DISCLAIMER

EXECUTIVE SUMMARY

TITLE: Executive Self-Assessment and Development in the United States Air Force

AUTHOR: Todd I. Stewart, Lieutenant Colonel, USAF

There currently is no comprehensive, research-based technology specifically designed and developed to assist Air Force officers in systematically assessing and developing the capabilities, qualities and qualifications required to perform effectively in executive-level positions of authority and responsibility. As used in this study, the term "executive-level" refers to positions normally filled by officers in the grade of colonel and general.

This study develops a comprehensive conceptual model of executive effectiveness in the Air Force. In general, the model comprises three subsets of executive effectiveness factors: professional military factors, general leadership and management factors, and functional/technical factors. The study also includes a critical review and assessment of the Air Force's current Officer Professional Development system. This analysis is accomplished by systematically comparing the existing system against a comprehensive set of design/assessment criteria.

Considering the comprehensive conceptual model and the critical analysis of the existing Air Force Officer Professional Development system, the study describes in detail a process for systematically designing, developing, implementing and maintaining a comprehensive executive self-assessment and development system. The study concludes with specific recommendations for management action and for follow-on related research.

BIOGRAPHICAL SKETCH

Lieutenant Colonel Todd I. Stewart

Lieutenant Colonel Stewart was commissioned in 1968 as a Distinguished Graduate of the Reserve Officer Training Corps, after graduating from Michigan Technological University with a Bachelor of Science Degree in Civil Engineering. He has served in a variety of Air Force Civil Engineering assignments at diverse locations, including Grand Forks Air Force Base (AFB), Thule Air Base (Greenland), Headquarters Strategic Air Command at Offutt AFB, and Headquarters United States Air Forces in Europe. He has also served as an Associate Professor of Management at the Air Force Institute of Technology's Graduate School of Systems and Logistics. Most recently, Lieutenant Colonel Stewart commanded the 36th Civil Engineering Squadron at Bitburg Air Base (Germany), selected as the best Civil Engineering squadron in the Air Force in 1988. He holds a Master of Science Degree in Engineering Management from Southern Methodist University and a Doctor of Philosophy Degree in Management from the University of Nebraska-Lincoln. He is a Distinguished Graduate of both the Air Force's Squadron Officer School and the Air Command and Staff College. In 1987, he was selected for promotion to the rank of colonel.

ACKNOWLEDGMENTS

I am indebted to a number of people who contributed significantly to this investigation. Dr. Barton J. Michelson served as the faculty advisor and provided the basic motivation for this study. His recommendations and critical comments were invaluable. Colonel Bryan D. Strickland and Colonel F. Edward Ward, Jr. of the Air War College's Department of Command and Leadership encouraged and supported the project from inception through completion. Lieutenant Colonel Steve Boyer and the senior professional staff of the Center for Creative Leadership, including Dr. David L. DeVries, Dr. Robert E. Kaplan, Dr. Stanley S. Gryskiewicz, Dr. Robert C. Dorn and Mr. Russell S. Moxley, Jr., graciously contributed their time, expertise and the results of their related research and executive development experience. Their support was instrumental to this study. Finally, while all of these outstanding professionals deserve much of the credit for any contribution this study makes to improving the effectiveness of Air Force officers and organizations, I alone deserve all of the blame if it doesn't.

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GLOSSARY

Assessment: The systematic evaluation/measurement of an officer's personal and professional capabilities, qualities and qualifications.

Criterion Factors/Variables: Those factors or system characteristics an individual is interested in controlling. In the context of this study, criterion variables are those personal and professional capabilities, qualities and qualifications which significantly affect an officer's performance in Air Force organizations.

Environmental Factors/Variables: Those factors or system characteristics which are in some sense significant to a particular individual but which cannot be directly controlled or influenced by that person. These are the "givens" which a person must accept in a particular decision/management situation.

Executive: In this study, the term executive refers to officers in the rank of colonel or general. "Senior executive" refers to general/flag officers.

Executive Effectiveness: A conceptual composite factor/variable which expresses how well an executive accomplishes assigned duties and responsibilities. Executive effectiveness is normally in terms of a particular profile of criterion factors/variables.

Executive-Level: Those positions in Air Force organizations to which colonels and general officers are normally assigned. These positions are typically characterized by significant amounts of authority and responsibility. They are also often characterized by the requirement for strategic, long-range planning and decision-making under conditions of risk and uncertainty. This is also sometimes referred to as the strategic level.

Executive Effectiveness Factor/Variables: Those specific capabilities, qualities and qualifications an Air Force executive must exhibit to perform effectively in a particular executive-level position.

Functional/Technical Effectiveness Factors/Variables: Those capabilities, qualities and qualifications an officer must have to perform effectively (at the executive level) in a particular functional/technical specialty. Currently, the Air Force manages some 39 different functional specialties.

General Leadership and Management Effectiveness Factors/Variables: Those capabilities, qualities and qualifications an officer must have to effectively lead and manage an organization at the executive level.   In general, these factors are independent of (i.e., common to) the officer's functional/technical specialty.

Management Action (Decision) Variables: Those factors or system characteristics which are in some sense significant to a particular individual and which can be directly controlled or influenced by that person. These are the capabilities, qualities and qualifications an officer can do something about.

Operational Definition: This refers to the specific operations, methods, procedures and technologies by which a particular factor/variable is measured, i.e., by which values of that factor/variable are determined or assigned.

Professional Military Effectiveness Factors/Variables: Those military capabilities, qualities and qualifications all officers serving at the executive level in Air Force organizations must possess.   In general, these factors/variables refer to competency across the range of military arts and sciences.

Standard: The specific level of a particular factor/variable which the Air Force (as an institution) sees as required or desirable.

CHAPTER I

INTRODUCTION

Overview

The chapter provides a general introduction to the study. It begins with a concise statement of the problem of interest, i.e., the lack of a system or technology designed specifically to assist Air Force officers in systematically assessing and developing their own <u>executive</u> capabilities, qualities, qualifications and effectiveness. The problem statement is followed by a brief description of the background and motivation for the study. The overall scope of the study is next described in three subsequent sections that address (respectively) the study's general purpose, specific objectives, and key assumptions and limitations. A brief statement of the study's potential significance is also included. The chapter concludes with a section that outlines the organization of the remainder of this report.

Problem Statement

There is no comprehensive, research-based system developed to assist Air Force officers in systematically assessing and developing <u>executive capability</u>, i.e., the knowledge, experience, skills, other professional qualifications, personal traits and behavioral characteristics necessary to perform effectively in senior/executive-level positions of authority and responsibility. In the context of this study, the term "executive" is operationally defined to mean officers serving in the ranks of colonel or general.

Background and Motivation for the Study

The study presented in this report initially evolved from a request by the faculty of the Department of Command and Leadership, Air War College (AWC), to analyze and assess their <u>Executive Assessment and Development Course</u> (132). This course has been developed by the AWC faculty to provide students with a logical and systematic process for gaining a clearer understanding of themselves--their values, goals and personal/professional needs for growth. In particular, the faculty requested that the course be analyzed and restructured so that it is:

(1)   Founded on a more conceptually-rigorous, research-based foundation;

(2)   Directly relevant to the specific needs of Air Force executives, i.e., officers serving in senior/executive-level positions; and

(3)   Interesting and directly useful to Air Force officers preparing to serve in (or already serving in) senior/executive-level positions.

This study was also motivated by Air Force Chief of Staff's current initiative to revitalize Air Force "officer professional development" (OPD) and to reorient it away from the "careerism" perspective currently held by many officers, i.e., a "square-filling" approach along preconceived paths to personal advancement and promotion (192).   Implicit in this careerism perspective are the assumptions (not necessarily unfounded) by many officers that:

(1)   There are a number of critical "squares" that must be filled as prerequisites to continued promotion; and

(2)   The current needs of the Air Force aren't always in the officer's best career interests and may serve to limit the officer's opportunity for promotion.

In fact, it might fairly be concluded that the new OPD programs are being implemented in response to a recognition that the system itself, as well as the perception of officers about the system, needs to be reoriented. Quoting General Larry D. Welch on his OPD initiative, "It is ... a straightforward redefinition of the continuous process of increasing the professional competence of all Air Force officers in their current jobs and of preparing officers for increased future responsibility" (192).   The cornerstone of the new OPD program involves a revised Officer Evaluation System (OES) (005; 007).   Other important OPD programs address professional military education,

assignment policies, and commander or supervisor involvement in assignments and professional development.

However, preliminary investigation suggested that no comprehensive, research-based system or technology has yet been developed or proposed to assist Air Force officers in this professional development process, i.e., a system to help officers assess and develop their own capabilities and qualifications to perform effectively in positions of increased authority and responsibility. More specifically, this preliminary investigation also indicated that no attempt has yet been made to systematically identify a comprehensive set "executive effectiveness factors," i.e., those executive-level capabilities, qualities and qualifications required for effective performance in positions normally filled by officers in the rank of colonel (O-6) and above.

Finally, this study was motivated by the general lack of systematic research into the subject of executive development. McCauley captures the essence of the problem very well in stating:

> Too often, management development efforts consist of a number of unrelated and haphazardly used devices, such as rotational systems, career path planning, development plans on performance appraisal forms, or mentoring systems. There has been little systematic research on what exactly managers need to develop and how they develop. (125:121)

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Purpose of the Study

The general purpose of this study is to improve the effectiveness of Air Force organizations by increasing executive effectiveness, i.e., by enhancing the effectiveness of officers serving in executive-level positions (i.e, senior command/leadership and management assignments). More specifically, the goal of this study is to propose the design of a comprehensive, structured, self-assessment and development system, derived from a research-based conceptual model, designed to assist Air Force officers acquire the knowledge, experience, skills, other professional qualifications, personal traits and behavioral characteristics necessary to perform effectively in senior/executive-level positions and to help them make more rational, informed decisions concerning their Air Force careers. Relatedly, the study is also intended to identify and discuss the problems and issues that need to be considered in implementing, operating and maintaining such an Air Force executive self-assessment and development system. Finally, the study is aimed at proposing a system that can help officers gain a clearer, more accurate understanding of their own personal and professional goals relative to the needs/values of the Air Force, so that they might make better-informed professional development and career decisions.

Objectives of the Study

This study was structured to accomplish the following specific objectives:

(1) Develop a comprehensive conceptual model of executive effectiveness in Air Force organizations, i.e., a model that identifies those factors significantly affecting executive effectiveness.

(2) Describe, analyze and evaluate the system/process by which the Air Force assesses and develops executive capabilities and effectiveness in its officers; include in this analysis and evaluation the executive self-assessment and development course presented at the Air War College.

(3) Describe the design, development, implementation and continuing operation and maintenance of a comprehensive system/process developed specifically to assist individual Air Force officers in systematically assessing and developing the capabilities, competencies and qualifications required to perform effectively in executive-level positions within the Air Force and Department of Defense.

(4) Present summary conclusions concerning the study and develop specific recommendations for management action and follow-on, related research.

Assumptions and Limitations

(1) The study is predicated on the basic premise that if officers are provided with a clear and comprehensive statement of the professional capabilities they need to develop, and they are equipped with an effective technology for systematically assessing and developing these specific capabilities/qualifications, they will be better able and motivated to develop these capabilities and will, in turn, be better prepared to perform effectively in executive-level positions of authority and responsibility.

(2) The study assumed that the reference materials available through the Air University library system are representative of the general population of references related to this investigation.

(3) The scope of the study was limited by the time available to the investigator while in the status of a full-time resident student at the Air War College during the period of the investigation (August 1988 through March 1989).

(4) The time available for this study did not permit the design, validation, administration and analysis of a survey instrument designed specifically to collect as data the opinions of (a representative sample of) Air Force general officers concerning those factors significantly affecting executive effectiveness.

Significance of the Study

The effectiveness of the Air Force, like other large, complex organizations, depends greatly on the corresponding effectiveness of the senior officers who command, lead and manage those organizations. The very purpose of the Air War College (AWC) is to help officers and civilians prepare for, and make the transition to, senior leadership or executive-level positions in the Air Force and other defense-related organizations. Any professional development system or process that can help the mid-level officer systematically develop those capabilities, qualities and qualifications needed to perform more effectively in senior leadership positions can potentially have a significant and far-reaching impact on improving organizational effectiveness throughout the Air Force. On a more individual and personal level, to the extent that the proposed system/model can also help individual officers better understand how their own values and personal/professional aspirations compare with the needs, values and demands of the Air Force as an institution, the proposed system/model should also promote more informed career decisions and improve job satisfaction.

Plan of the Report

This report comprises six chapters, including this general introduction. Chapter II describes the study's design, i.e., the methods used to accomplish each of the study's specific objectives and the overall goal of the analysis. Chapters III through VI (respectively) address each of the study's four objectives. Chapter III, the major portion of the study, develops a comprehensive research-based conceptual model of executive effectiveness in Air Force organizations, i.e., a model that relates various executive capability or effectiveness factors to overall executive effectiveness and, indirectly, to organizational effectiveness. Chapter IV presents a description, analysis and critical assessment of the system/process by which the Air Force currently evaluates and develops executive capability in its officers. Also included in Chapter IV is a brief critical analysis of the Air War College's Executive Assessment and Development Course. Chapter V is the central focus of the study. It describes a process for systematically designing, implementing and maintaining an "executive capabilities self-assessment and development system" developed specifically for Air Force officers. This proposed system is derived from the conceptual model presented in Chapter III and was designed to complement the Air Force assessment and development process described and analyzed in Chapter IV. The final chapter in the report presents findings and conclusions with respect to each of the study objectives. It also presents recommendations for both management action and for follow-on related research. The study also includes five supporting appendixes and a comprehensive bibliography and list of related references.

CHAPTER II

STUDY DESIGN

Overview

The purpose of this chapter is to describe the methods of analysis used in the study. The first section briefly discusses the general design of the study. The subsequent four sections address the respective study objectives. In each of these sections, the method and procedures used to accomplish the objective are described. In several sections, specific research hypotheses and questions are introduced. Where this has been done, the procedures use to collect and analyze the data necessary to test the hypothesis or answer the question are described.

General Study Design

The general goal of this study is to propose a technology to assist Air Force officers in assessing and developing their capability to perform effectively in senior/executive positions of responsibility and authority. The logical process used to pursue this goal is, to a certain extent, implied in the organization of this report. The first step in the process was to develop a research-based comprehensive conceptual model to clearly identify those factors significantly affecting performance effectiveness by officers serving in executive roles and positions. This was done by reviewing pertinent literature on the subject and by critically analyzing and assessing the system/process by which the Air Force currently assesses and develops executive capabilities in its officers.

Building on this conceptual/theoretical base, the second step in the design was to describe, analyze and critically analyze the current Air Force system for executive assessment and development. The primary purpose of this analysis was to identify weaknesses in the current system which could be improved and strengths which might be further enhanced.

The final step in the process involved proposing the design for a comprehensive system or technology to help Air Force officers systematically assess and develop their own executive capabilities, i.e., executive qualifications and competencies. This proposed design considered both the general conceptual model developed in the study and the strengths and weaknesses of the existing Air Force system.

Objective: Develop a comprehensive conceptual model of executive
effectiveness in Air Force organizations, i.e., a model that identifies those
factors significantly affecting executive effectiveness.

Associated Research Questions.

Objective One was accomplished in part by answering the following
associated research questions; these questions were answered by reviewing
and subjectively analyzing/interpreting appropriate references in the Air
University Library system:

(RQ 1.1)   What is the most appropriate technology to use to construct
a comprehensive conceptual model of executive effectiveness in Air Force
organizations?

(RQ 1.2)   Are there any comprehensive conceptual models that describe
the factors affecting executive effectiveness and the relationship between
executive and organizational effectiveness in Air Force organizations?

(RQ 1.3)   What factors significantly affect executive performance
effectiveness in Air Force organizations?

(RQ 1.4) Are there any significant differences in executive
capabilities and qualifications required in Air Force organizations and those
required in non-Air Force organizations of comparable size and complexity?

(RQ 1.5)   What is the difference between the capabilities and qualifications required for effective performance at the executive level in Air Force organizations and the capabilities and qualifications required for effective performance at subordinate levels?

(RQ 1.6)   What is the difference between executive capabilities and qualifications required in Air Force organizations now and those capabilities and qualifications that are likely to be required in the future?

(RQ 1.7)   How can those factors affecting executive effectiveness in Air Force organizations, and the relationships between those factors, be integrated into a comprehensive conceptual model?

Associated Research (Null) Hypotheses,

The following research (null) hypotheses were also tested in the process of accomplishing this objective:

(Ho 1.1)   There are no comprehensive conceptual models that adequately describe executive effectiveness and performance in Air Force organizations.

Data Collection: Review of appropriate references available in the Air University Library system.

Data Analysis: Subjective analysis/interpretation of the pertinent references.

Rejection Criterion: The null hypothesis will be rejected if any reference can be identified that describes (for Air Force organizations):

(1)   the relationship between executive effectiveness and organizational effectiveness; and

(2)   the factors significantly affecting executive effectiveness.

(Ho 1.2)   There are no significant differences between the executive capabilities and qualifications required in Air Force organizations and those required in non-Air Force organizations of comparable size and complexity.

Data Collection: Review of appropriate references available in the Air University Library system.

Data Analysis: Subjective analysis/interpretation of the pertinent references.

Rejection Criterion: The null hypothesis will be rejected if the majority of references reviewed identify significant differences between the executive capabilities and qualifications required in Air Force organizations and those required in non-Air Force organizations of comparable size and complexity.

(Ho 1.3)   There is no significant difference between the capabilities and qualifications required for effective performance at the executive level and at subordinate levels in Air Force organizations.

Data Collection: Review of appropriate references available in the Air University Library system.

Data Analysis: Subjective analysis/interpretation of the pertinent references.

Rejection Criterion: The null hypothesis will be rejected if the majority of the references reviewed identify significant differences between

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the capabilities and qualifications required for effective performance at the executive level in Air Force organizations vis-a-vis subordinate levels.

(Ho 1.4) There is no significant difference between the executive capabilities and qualifications required now in Air Force organizations and those that are likely to be required in the future.

Data Collection: Review of appropriate references available in the Air University Library system.

Data Analysis: Subjective analysis/interpretation of the pertinent references.

Rejection Criterion: The null hypothesis will be rejected if the majority of references reviewed identify significant differences between the executive capabilities and qualifications required now in Air Force organizations and those that are likely to be required in the future.

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Objective Two

Objective: **Describe, analyze and evaluate the system/process by which the Air Force assesses and develops executive capabilities and effectiveness in its officers; include in this analysis and evaluation the executive self-assessment and development course presented at the Air War College.**

Associated Research Questions.

Objective Two was accomplished in part by answering the following associated research questions; these questions were answered by reviewing and subjectively analyzing/interpreting appropriate references in the Air University Library system:

(RQ 2.1) What criteria (and associated standards) *should be used to* evaluate:

(1) The Air Force's system/process for assessing executive capabilities, qualifications and effectiveness in its officers?

(2) The Air Force's system/process for developing executive capabilities, qualifications and effectiveness in its officers?

(3) The Air War College's resident course in executive self-assessment and development?

(RQ 2.2) How does the Air Force's current executive assessment and development system/process compare with the proposed evaluation criteria?

(RQ 2.3)　How does the Air War College's course in executive self-assessment and development compare with the proposed evaluation criteria?

Objective Three

Objective: Describe   the   design,   development,   implementation   and
continuing   operation   and   maintenance   of   a   comprehensive   system/process
developed   specifically   to   assist   individual   Air   Force   officers   in
systematically assessing and developing the capabilities, competencies and
qualifications required to perform effectively in executive-level positions
within the Air Force and Department of Defense.

Associated Research Questions.

Objective Three was accomplished in part by answering the following
associated research questions;   these questions were answered by reviewing
and subjectively analyzing/interpreting appropriate references in the Air
University Library system:

(RQ 3.1)   What process should be followed in designing, implementing
and maintaining a comprehensive, effective and practical Air Force executive
self-assessment and development system?

(RQ 3.2)   What objectives, criteria, assumptions and constraints should
be considered in designing, implementing and maintaining a comprehensive,
effective and practical Air Force executive self-assessment and development
system?

(RQ 3.3) What conceptual models or frameworks can be used to structure and facilitate the process of designing, implementing and maintaining a comprehensive, effective and practical Air Force executive self-assessment and development system?

(RQ 3.4) What executive capability/effectiveness factors should be included in the proposed Air Force executive self-assessment and development system?

(RQ 3.5) What operational definitions and measurement technologies should be used to assign values to the capability/effectiveness factors incorporated in the proposed Air Force executive self-assessment and development system?

(RQ 3.6) What executive development resources are available to improve performance on the respective capability/effectiveness factors incorporated in the proposed Air Force executive self-assessment and development system?

(RQ 3.7) What factors should be considered in operationalizing and implementing the proposed Air Force executive self-assessment and development system and in operating and maintaining that system after it has been implemented?

Objective Four

Objective: Present summary conclusions concerning the study and develop specific recommendations for management action and follow-on, related research.

Associated Research Questions.

Objective Four was accomplished by answering the following associated research questions; these questions were answered by considering the answers to the other research questions investigated and the results of the associated hypotheses tested in this study:

(RQ 4.1)   What summary conclusions can be drawn concerning this study?

(RQ 4.2)   What specific actions should the Air Force take to improve the systematic assessment and development of executive capabilities, qualifications and effectiveness in its officers?

(RQ 4.3)   What follow-on related research should be accomplished?

CHAPTER III

A CONCEPTUAL MODEL OF EXECUTIVE EFFECTIVENESS IN THE AIR FORCE

Overview

Chapter III accomplishes the first objective of the study:

> Develop a comprehensive conceptual model of executive effectiveness in Air Force organizations, i.e., a model that identifies those factors significantly affecting executive effectiveness.

The chapter is organized into seven sections. Each section addresses one of the research questions and, where applicable, the associated research hypotheses, supporting this objective. The first section introduces the concept of influence diagrams as an effective technology for constructing a comprehensive conceptual model of executive effectiveness in the Air Force. The second section presents a review of literature to identify any comprehensive conceptual models that have already been developed to describe those factors affecting executive effectiveness and the relationship between executive effectiveness and organizational effectiveness in the Air Force. Section three identifies those factors that appear to significantly affect executive effectiveness in Air Force organizations. The fourth section

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examines the differences between executive effectiveness in the Air Force and in other private- and public-sector organizations of comparable size and complexity. Section five addresses significant differences between the factors affecting effectiveness at the executive level of command, leadership and management in the Air Force, and those factors affecting effectiveness at subordinate levels. The sixtn section in this chapter focuses on how the factors affecting executive effectiveness in the Air Force are likely to change in the future. The final section in the chapter integrates the chapter by presenting a comprehensive conceptual model illustrating the factors affecting executive effectiveness in Air Force organizations and the relationships between those factors. This section is the conceptual foundation of the study and is the basis for a focused self-assessment and professional development system for Air Force officers.

(RQ 1.1)   What is the most appropriate technology to use to construct a comprehensive conceptual model of executive effectiveness in air force organizations?

A number of alternative verbal and graphical modeling techniques are available to describe conceptual systems. However, because of the complexity envisioned in modeling the concept of executive effectiveness, the influence diagram, a well-developed systems analysis technology, was considered to be the most appropriate technique for constructing a comprehensive conceptual model. This section provides a brief introduction to that technology.

Influence diagrams are a simple, yet extremely powerful and robust, graphical technique developed to model a variety of complex phenomena as systems of constituent components and associated linking relationships. This modeling technology has been successfully used to model many diverse, complex physical and conceptual systems. Influence diagrams have the added advantage of being readily quantified and/or automated, greatly facilitating the modeling of very large, complex systems.

Figure 3-1 illustrates the most basic example of an influence diagram. It implies that changes in one variable are positively, i.e., directly, associated or correlated with corresponding changes in another variable. To be more specific, Figure 3-1 suggests that increases in the variable represented by the symbol "X" are associated/correlated with increases in the variable represented by the symbol "Y." Alternatively, the diagram in

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VARIABLE   ◁———— (+) ————▷   VARIABLE

(X)   (Y)
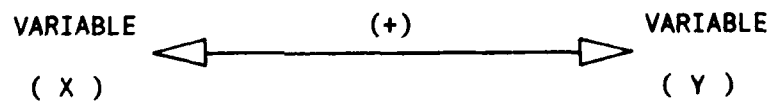
Figure 3-1:   Direct Associative Relationship

Figure 3-1 also implies that decreases in the "X" variable are associated/correlated with corresponding decreases in the "Y" variable.

Figure 3-2 illustrates a _negative_ or _inverse_ association/correlation between two variables/factors. In this example, an increase in one variable is associated/correlated with a decrease in the other variable (and vice versa). It should be noted that the direct and inverse relationships shown in Figures 3-1 and 3-2 respectively are _associative_ or _correlational_ in nature. This type of relationship should _not_ be interpreted to infer that a _causal_ linkage exists, i.e., that a change in one variable _causes_ a resultant change in the other variable. Assuming that appropriate operational (i.e., measurable) definitions can be devised for each factor and suitable measurement instruments can be appropriately administered, statistical correlations can be computed that express the "strength" of the correlation/association. When such correlations are very high, there is often a temptation to infer some sort of causality, when in fact, such an inference is not strictly warranted and may be misleading in accurately modeling and understanding the true nature of the phenomenon being studied.

Figures 3-3 and 3-4 are influence diagrams that illustrate causal or, to be more precise, _sequential_ (direct and inverse) relationships. The influence diagram in Figure 3-3, for example, implies that an increase in the independent variable "X" (always) precedes a subsequent or resultant increase in the dependent variable "Y." The system modeled in Figure 3-4 illustrates an inverse sequential relationship, e.g., a decrease in the independent variable "X" (always) precedes a subsequent/resultant increase in the dependent variable "Y." Sequential relationships infer a temporal or

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VARIABLE   (-)   VARIABLE

(X)   ⟨⎯⎯⎯⎯⎯⎯⎯⟩   (Y)
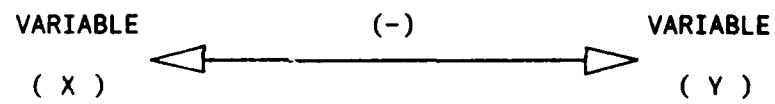
Figure 3-2:   Inverse Associative Relationship

VARIABLE (+) VARIABLE

(X) ——————————▷ (Y)
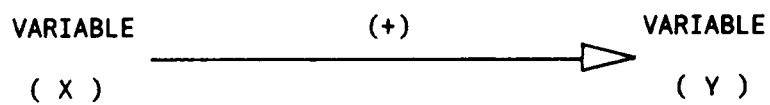
Figure 3-3: Direct Sequential Relationship

VARIABLE   (-)   VARIABLE

(X)   (Y)
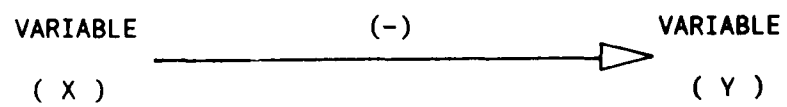
Figure 3-4:   Inverse Sequential Relationship

precedence dimension. Sequential relationships are more "powerful" than associative relationships in that they not only indicate association, but that a change in the independent variable (always) precedes a subsequent/resultant change in the dependent variable. In this sense, sequential relationships contain more information than do associative or correlational variables and are more "efficient". However, sequential relationships do not indicate corresponding rates of change between the linked variables, i.e., how much the dependent variable subsequently changes with a unit change in the independent variable.

Relationships that show both direction (precedence) and rate of change (magnitude) are termed determinant or functional. In this situation, knowing the value of the independent variable permits determination of the value of the dependent variable (over the domain of values of the independent variable for which the relationship is defined). Figures 3-5 and 3-6 are examples of influence diagrams illustrating functional relationships. Figure 3-5 is a model of an inverse, linear functional relationship defined over a specified domain. By contrast, Figure 3-6 illustrates a model of a direct nonlinear (exponential) functional relationship defined over an unbounded domain. Obviously, a functional relationship is even more powerful than either a sequential or an associative relationship. The functional relationship indicates a correlation exists between two factors; a change in one factor always precedes a subsequent change in another variable; and the manner or rate at which the dependent factor varies with a unit change in the independent antecedent variable.

VARIABLE   -A(X)   VARIABLE

(X)   (Y)

$$0 \leq X \leq n$$
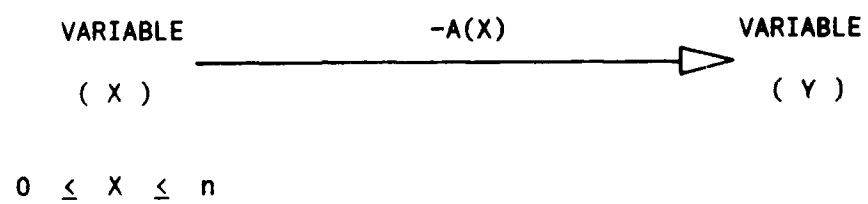
$$Y = F\{X\} = -A(X)$$

Figure 3-5: Inverse, Linear, Functional Relationship

VARIABLE $\quad\quad\xrightarrow{\quad AX^2 + B \quad}\quad$ VARIABLE

(X) $\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad\quad$ (Y)
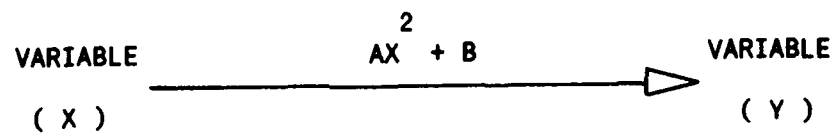
$$Y = F\{X\} = AX^2 + B$$

Figure 3-6: Direct, Nonlinear, Functional Relationship

The influence diagrams illustrated in Figures 3-5 and 3-6 assume that the values of the independent variable (X) and, consequently, the dependent variable (Y) are known with certainty. When this is the case, the relationship (model) is said to be deterministic. In the more general case--and perhaps the more realistic one--these values are not known with certainty, but can be estimated with certain probability distributions or with representative statistical estimates (i.e., for central tendency and variability, e.g., mean and standard deviation). Consequently, relationships can also be classified as either deterministic or probabilistic/stochastic.

Of course, only the simplest of systems is bivariate in nature, i.e., involving only two variables. In most cases, the phenomena being modeled are more complex and multivariate. Figure 3-7 illustrates the most basic case of a multivariate system. In this example, the dependent variable (Y) is a function of two independent variables (X1 and X2).

The influence diagram shown in Figure 3-8 illustrates one additional important concept, the notion of indirect relationships. In this example, the variable Y is dependently and directly related to the independent variable X2. But concurrently, X2 is dependently and directly related to the independent variable X3. Therefore, the variable Y is dependently, but indirectly, related to the independent variable X3.

This discussion might suggest that influence diagrams are primarily applicable to situations in which the factors and relationships can be readily measured and quantified. Such is not the case. Often, particularly in very preliminary research into a particular phenomenon, the factors and

H(X1)　　　　VARIABLE

(X1)

VARIABLE

(Y)

G(X2)　　　　VARIABLE

(X2)
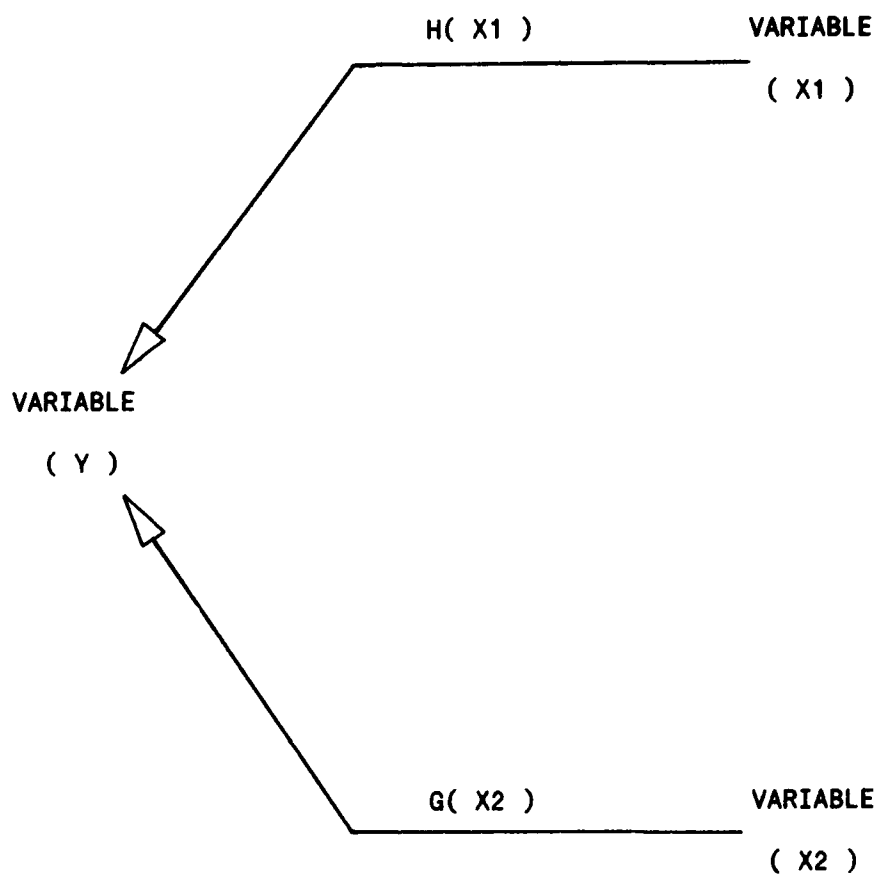
$$Y = F\{ X1, X2 \} = H(X1) + G(X2)$$

Figure 3-7:　Direct, Functional, Multivariate Relationship

F(X1)   VARIABLE

                 (X1)

VARIABLE   VARIABLE

(Y)   (X3)

        G(X2)   VARIABLE   H(X3)

                         (X2)
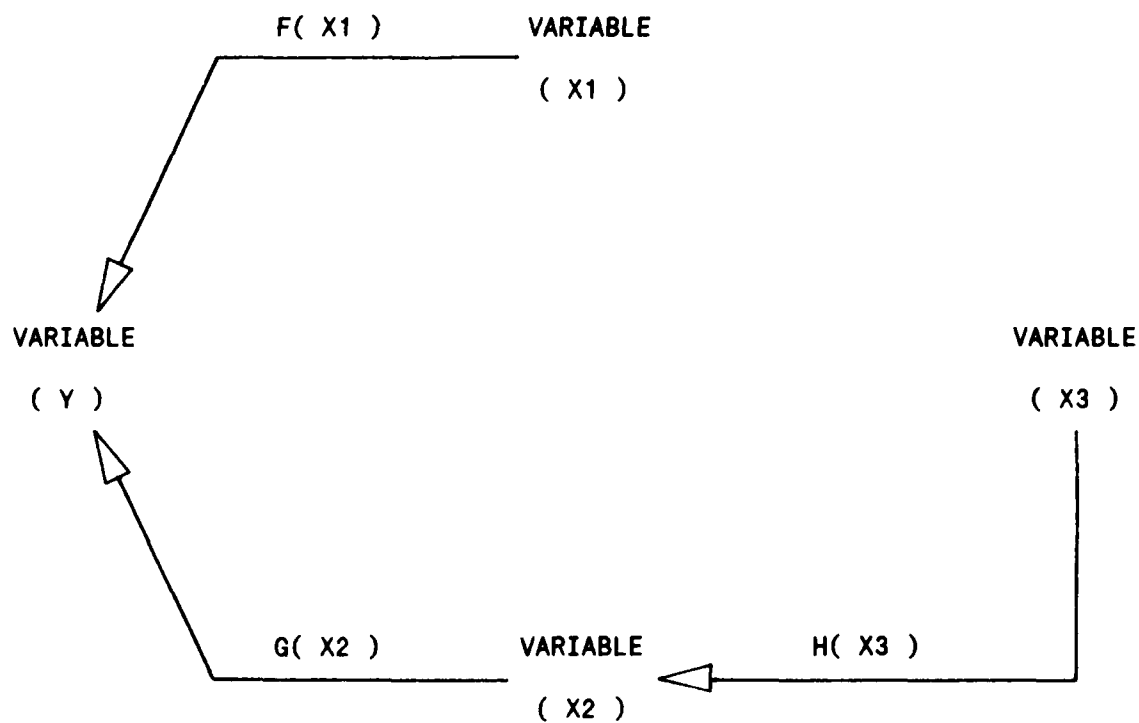
$$Y = F\{ X1 \} + G\{ X2 \}$$

$$X2 = H(X3)$$

$$Y = F\{ X1 \} + G\{ H(X3)\}$$

Figure 3-8:   Indirect, Functional, Multivariate Relationship

the nature of their relationships are not known with sufficient precision to permit quantification. In this case, the value of the influence diagram is that it helps the analyst hypothesize the nature of the relationships and systematically test those relationships. Initial descriptions of the nature of hypothesized relationships might well be verbal, rather than quantitative.

There is one additional point to be made concerning the interpretation of the variables comprising a particular influence system diagram. Variables can be taxonomized as "criterion" variables, "Decision/control/management action" variables or "environmental" variables. Criterion variables are those (dependent) variables that the particular analyst is interested in changing, i.e., either increasing or decreasing. In the context of organizational systems, criterion variables are typically concerned with various measures of organizational effectiveness, efficiency, or health. In the Air Force, for example, common criterion variables include combat capability ratings, Inspector General ratings, sortie generation rates, aircraft fully mission capable rates, retention and reenlistment rates, disciplinary infractions and so forth.

For each such criterion variable, the analyst must (explicitly or implicitly) consider which of the (independent) variables directly related to the criterion variable of interest can be manipulated or controlled by the analyst, i.e., which of the independent related factors the analyst can vary to induce or produce the desired change in the criterion variable. For example, if the analyst wants to reduce turnover rates (and the costs associated with turnover), he might elect to increase salaries or improve

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working conditions, assuming he has the capability of making these changes. In this example, the criterion variable is turnover rate and the decision/control/management action variables are salaries and working conditions.

In contrast, those independent variables which affect the criterion variable, but which the analyst cannot directly manipulate or control, are referred to as environmental factors. These are the significant "givens" to the analyst. It should be apparent that such interpretive labels are highly situational or contextual and are not inherent qualities of the factors per se. In particular, these characterizations are particularly dependent on the analyst. In the previous example, the analyst might well not have the authority to increase salaries with the intent of producing even greater reductions in the costs associated with turnover. If this is the case, salaries are an environmental variable to the analyst. However, if the analysts's supervisor has the authority to increase salaries, then salaries are indeed a management action variable from the supervisor's perspective. These concepts are illustrated in the simple example in Figure 3-9. The primary utility of this taxonomy is that it facilitates systematic and rigorous thinking about complex and abstract phenomena.

In summary, influence diagrams offer a very simple, yet extremely powerful, graphical tool for modeling very complex physical and conceptual phenomena. This technique also provides the flexibility to accommodate a variety of relationships, i.e., associative/sequential/functional, positive (direct)/negative (inverse), linear/nonlinear, deterministic/stochastic and

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TURNOVER
RATES/COST

(CRITERION VARIABLE)

(-)   (-)

SALARIES   WORKING CONDITIONS

(MANAGEMENT ACTION   (MANAGEMENT ACTION
VARIABLE)   VARIABLE)

(+)

COMPETING OPPORTUNITIES
IN THE MARKETPLACE

(ENVIRONMENTAL VARIABLE)
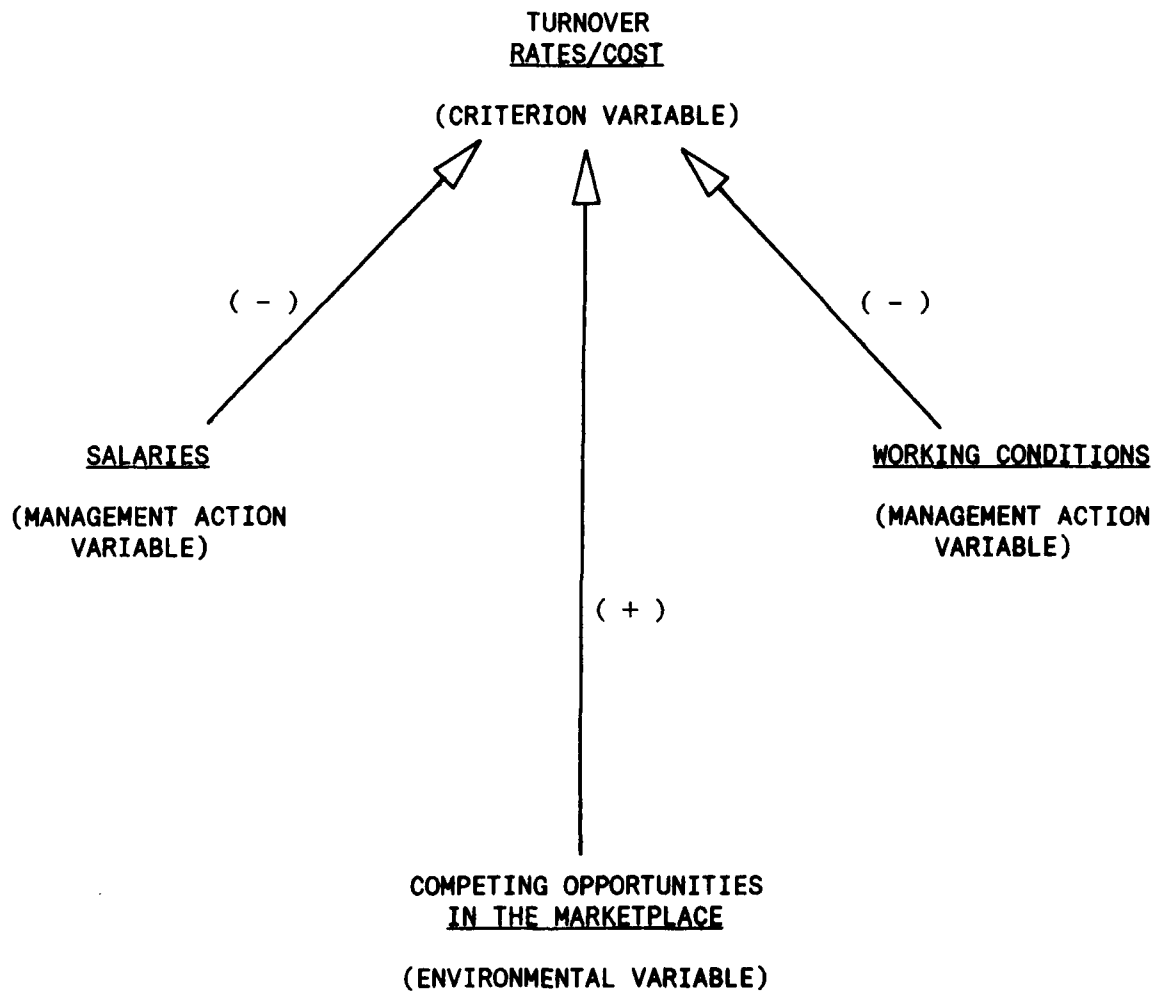
Figure 3-9: Example of an Influence Diagram Illustrating Criterion,
Management Action and Environmental Variables

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direct/indirect. The type of relationships included in a particular influence diagram model are, of course, determined by the amount of information that can be discerned (with validity) about the true nature of the phenomenon being modeled. For these reasons, the influence diagram technology was judged to be the most appropriate tool for modeling executive effectiveness in Air Force organizations.

(RQ 1.2)   Are there any comprehensive conceptual models that describe the factors affecting executive effectiveness and the relationship between executive and organizational effectiveness in air force organizations?

(Ho 1.1)   There are no comprehensive conceptual models that adequately describe executive effectiveness and performance in Air Force organizations.

The general literature review conducted for this study (see the appendix containing the bibliography and related references) failed to identify any comprehensive conceptual models developed specifically to describe the factors affecting executive effectiveness in the Air Force or models that related executive effectiveness to organizational effectiveness in the Air Force. It is particular noteworthy that no such explicit, comprehensive model exists in the official Air Force literature. In particular, AFR 36-9 (General Officer Evaluations), AFR 36-10 (Officer Evaluation System), and AFR 36-23 (Officer Professional Development) present no explicit integrated description of:

-    The relationship between executive performance/effectiveness and organizational effectiveness, in the context of other relevant (environmental) factors affecting organizational effectiveness/performance;

-    The factors affecting executive effectiveness; and/or

-    The relationship between those factors affecting executive performance/effectiveness.(006; 007; 008)

A number of more general or generic conceptual frameworks were identified which related executive effectiveness to broad categories of

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factors such as individual attributes, job characteristics, and other environmental variables. The influence diagram included in Appendix C-1 is derived from one such representative model developed by Mintzberg.(135)

The 1985 study on "Command Effectiveness in the United States Navy" prepared by McBer and Company provided the most nearly relevant example of a comprehensive conceptual model for describing and understanding the factors affecting executive effectiveness and the relationship between executive effectiveness and organizational effectiveness.(039) Figure 3-10 illustrates the most general level of the model, while Figure 3-11 illustrates the commander's significant characteristics in the context of the general model.(039:14 & 22) No assertion is made here that this model is directly applicable to executive-level effectiveness in the Air Force. However, the model does offer a reasonably good example of the type of general comprehensive conceptual model which should be developed as the basis for and <u>as a prerequisite to</u> the <u>subsequent</u> development of an associated executive effectiveness/performance assessment system and, relatedly, an executive professional development system (including continuing professional military education).

The asserted conclusion that the Air Force currently lacks an explicit comprehensive conceptual model of executive effectiveness will be developed further in the following sections of this chapter. Based on the review of the literature conducted for this study, it must be concluded that it is not possible to reject research hypothesis Ho 1.1.

MODEL FOR COMMAND EFFECTIVENESS

INPUTS

People

Fleet/Squadron Objectives

Strategy, Tactics, and Operating Schedule

Materiel & Money

Navy-Wide Procedures & Systems

Technology

RELATIONSHIPS

CO - XO Relationship

Chain of Command

External Relations

PEOPLE

CO

XO

Wardroom

Chiefs

Crew

ACTIVITIES

Planning

Maintaining Standards

Communicating

Building Esprit de Corps

Training & Development

INTERMEDIATE OUTPUTS

Sense of Mission

Motivation

Commitment

Morale Pride & Teamwork

Attitudes & Values

FINAL OUTPUTS

Combat Readiness

Mission Accomplishment

Inspection Results

Retention

Safety

ENVIRONMENT
(Squadron/Wing Commander Shipyard, Other Commands, etc.)

Figure 3-10: Navy Model for Command Effectiveness (039:14)

COMMANDING OFFICER'S CHARACTERISTICS

- TARGETS KEY ISSUES

- GETS CREW TO SUPPORT COMMAND PHILOSOPHY

- DEVELOPS EXECUTIVE OFFICER

- STAFFS TO OPTIMIZE PERFORMANCE

- GETS OUT AND ABOUT

- BUILDS ESPRIT DE CORPS

- KEEPS HIS COOL

- DEVELOPS STRONG WARDROOM

- VALUES CHIEFS QUARTERS

- LINKS TRAINING TO COMBAT READINESS

- BUILDS POSITIVE EXTERNAL RELATIONSHIPS

- INFLUENCES SUCCESSFULLY

Figure 3-11: Navy Model of Commanding Officer's Characteristics (039:22)

(RQ 1.3)   What factors significantly affect executive performance effectiveness in air force organizations?

To answer this research question, the official and unofficial literature concerned with executive effectiveness in military and non-military organizations was reviewed.   The results of that review are reported as responses to the following more specific related research questions.

(RQ 1.3.1)   What factors affecting executive performance effectiveness are identified in official Air Force publications/sources?

The new (1 August 1988) AFR 36-10 (Officer Evaluation System) and the associated AFP 36-6 (USAF Officer's Guide to the Officer Evaluation System) describe the procedures to be followed and factors to be considered in the annual performance rating of Air Force officers in the grades of second lieutenant through colonel.(005; 007)   They also outline the procedures to be followed in making promotion recommendations on these officers.   It is important to note that these official publications do not directly identify specific performance factors to be considered in recommending officers for promotion to executive levels, i.e., from lieutenant colonel to colonel and from colonel to brigadier general.   However, this guidance does direct that promotion recommendations should be based primarily on performance in the current grade and level of responsibility.   Therefore, the implication is that promotion recommendations are based on the same factors considered in the annual effectiveness rating.   It should also be noted that this guidance infers that an officer's performance effectiveness in his/her current

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assignment and grade is a valid and reliable indicator/predictor of the officer's capability to perform effectively in positions/grades of increased authority and responsibility. AF Form 707A (Field Grade Officer Performance Report), included as Figure 3-12, describes those factors to be considered in assessing performance effectiveness. Figure 3-13 is an influence diagram that illustrates the (asserted/hypothesized) relationships between these independent variables and the dependent criterion variable, i.e., executive effectiveness. The six general performance factor categories (i.e., job knowledge, leadership skills, professional qualities, organizational skills, judgment and decisions, and communication skills) comprise 24 specific performance factors. It is worth emphasizing that no distinction is made in the factors used to evaluate colonels (senior/executive officers) from those used to evaluate the performance of majors and lieutenant colonels. These official publications include no empirical data or other evidence to support the inference that these factors are positively correlated to performance effectiveness defined in terms of observable measures, e.g. productivity or efficiency. These publications also do not indicate why these particular factors (and not others) were included. The implication is that these particular performance factors were defined rather than derived. Notwithstanding this observation, these performance factors constitute the Air Force's only institutional statement of factors affecting executive (at the colonel level) effectiveness.

AFR 36-9 (General Officer Evaluations) describe the procedures to be used in evaluating the effectiveness of major generals, brigadier generals, and brigadier general selectees. This publication provides no guidance

I. RATEE IDENTIFICATION DATA *(Read AFR 36-10 carefully before filling in any item)*

1. NAME *(Last, First, Middle Initial)*	2. SSN	3. GRADE	4. DAFSC

5. PERIOD OF REPORT		6. NO. DAYS SUPERVISION	7. REASON FOR REPORT
From:	Thru:		

8. ORGANIZATION, COMMAND, LOCATION	9. PAS CODE

II. UNIT MISSION DESCRIPTION

III. JOB DESCRIPTION 1. DUTY TITLE:
2. KEY DUTIES, TASKS, AND RESPONSIBILITIES:

IV. IMPACT ON MISSION ACCOMPLISHMENT

V. PERFORMANCE FACTORS	DOES NOT MEET STANDARDS	MEETS STANDARDS
1. Job Knowledge Has knowledge required to perform duties effectively. Strives to improve that knowledge.	☐	☐
2. Leadership Skills Sets and enforces standards. Works well with others. Fosters teamwork. Displays initiative. Self-confident.	☐	☐
3. Professional Qualities Exhibits loyalty, discipline, dedication, integrity, and honesty. Adheres to Air Force standards. Accepts personal responsibility. Is fair and objective.	☐	☐
4. Organizational Skills Plans, coordinates, schedules, and uses resources effectively. Meets suspenses.	☐	☐
5. Judgment and Decisions Makes timely and accurate decisions. Emphasizes logic in decision making. Retains composure in stressful situations. Recognizes opportunities. Requires minimal supervision	☐	☐
6. Communication Skills Listens, speaks, and writes effectively.	☐	☐

AF Form 707B, AUG 88   **COMPANY GRADE OFFICER PERFORMANCE REPORT**

Figure 3-12: Air Force Field Grade Officer Performance Report

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JOB KNOWLEDGE (+)
* Knowledge required to perform
  duties effectively
* Strives to improves this knowledge
* Applies knowledge to handle
  nonroutine situations

LEADERSHIP SKILLS (+)
* Sets and enforces standards
* Motivates subordinates
* Works well with others
* Fosters teamwork
* Displays initiative
* Self confident
* Has respect and confidence of
  subordinates
* Fair and consistent in
  evaluation of subordinates

PROFESSIONAL QUALITIES (+)
* Exhibits loyalty, discipline,
  dedication, integrity and
  honesty
* Adheres to Air Force standards
* Accepts personal responsibility
* Is fair and objective

EXECUTIVE EFFECTIVENESS

ORGANIZATIONAL SKILLS (+)
* Plans, coordinates, schedules and
  uses resources effectively
* Schedules work for self and others
  equitably and effectively
* Anticipates and solves problems
* Meets suspenses

JUDGMENT AND DECISIONS (+)
* Makes timely and accurate decisions
* Emphasizes logic in decision making
* Retains composure in stressful
  situations
* Recognizes opportunities and acts
  to take advantage of them

COMMUNICATION SKILLS (+)
* Listens, speaks and writes effectively

Figure 3-13: Air Force Field Grade Officer Effectiveness

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concerning the performance factors to be considered. Evaluations are totally subjective assessments on the part of the respective raters. Consequently, there is no institutional statement of those factors affecting executive effectiveness at this level of authority and responsibility.

The new (1 January 1989) AFR 36-23 (_Officer Professional Development_) describes the Air Force's philosophy, policies and procedures concerning the professional development of Air Force officers in the grades of second lieutenant through colonel. The regulation was totally revised (from the 11 March 1985 edition) to incorporate major changes in the Air Force's thinking concerning officer professional development. It includes topics such as performance evaluation, promotion, assignment and training/education. Part I provides general guidance. Part II includes more specific professional development guidance for 39 different professional specialties.

It is both interesting and important to note that AFR 36-23 does not include a concise, explicit statement of the specific qualifications, abilities and characteristics the Air Force values and seeks to develop in its officers. However, through a close review of Part I (Chapters 1 - 4), the following general executive effectiveness factors were distilled out of this general discussion:

- Depth and breadth of technical expertise/competence (in the officer's particular specialty)

- Depth and breadth of experience, including assignments:

- In and out of the officer's technical specialty

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- At various organizational levels and in different major commands (consistent with the officer's technical specialty)

  - In command, if possible

  - In joint/combined organizations

- Leadership skills

- Management skills

- Staff skills

- Communication skills

- Professional military skills, including:

  - Aerospace force development and employment

  - National security policy

Figure 3-14 is an influence diagram that illustrates these Air Force Officer Professional Development System effectiveness factors.

Another research tactic employed to determine any existing official (direct or indirect) statement of executive effectiveness factors valued by the Air Force involved attempting to identify criteria or factors used by Air Force boards in selecting officers for promotion to colonel and general officer ranks (i.e., the executive level ranks). The branch at the Air Force Military Personnel Center (MPC) responsible for analyzing the results of promotion selection boards was contacted. Representatives of this unit advised that their analyses were essentially demographic in nature and, in particular, they were not aware of any analyses that had been accomplished to determine the specific selection criteria used by these boards. A review of the demographic analyses from the last three colonel selection boards identified only one consistent trend (for regular line officers). These

DEPTH OF (+)
EXPERTISE

BREADTH OF (+)
EXPERTISE

DEPTH OF (+)
EXPERIENCE

BREADTH OF (+)
EXPERIENCE

LEADERSHIP (+)
SKILLS

MANAGEMENT (+)
SKILLS

STAFF (+)
SKILLS

COMMUNICATION (+)
SKILLS

PROFESSIONAL (+)
MILITARY
QUALITIES

EXECUTIVE
EFFECTIVENESS
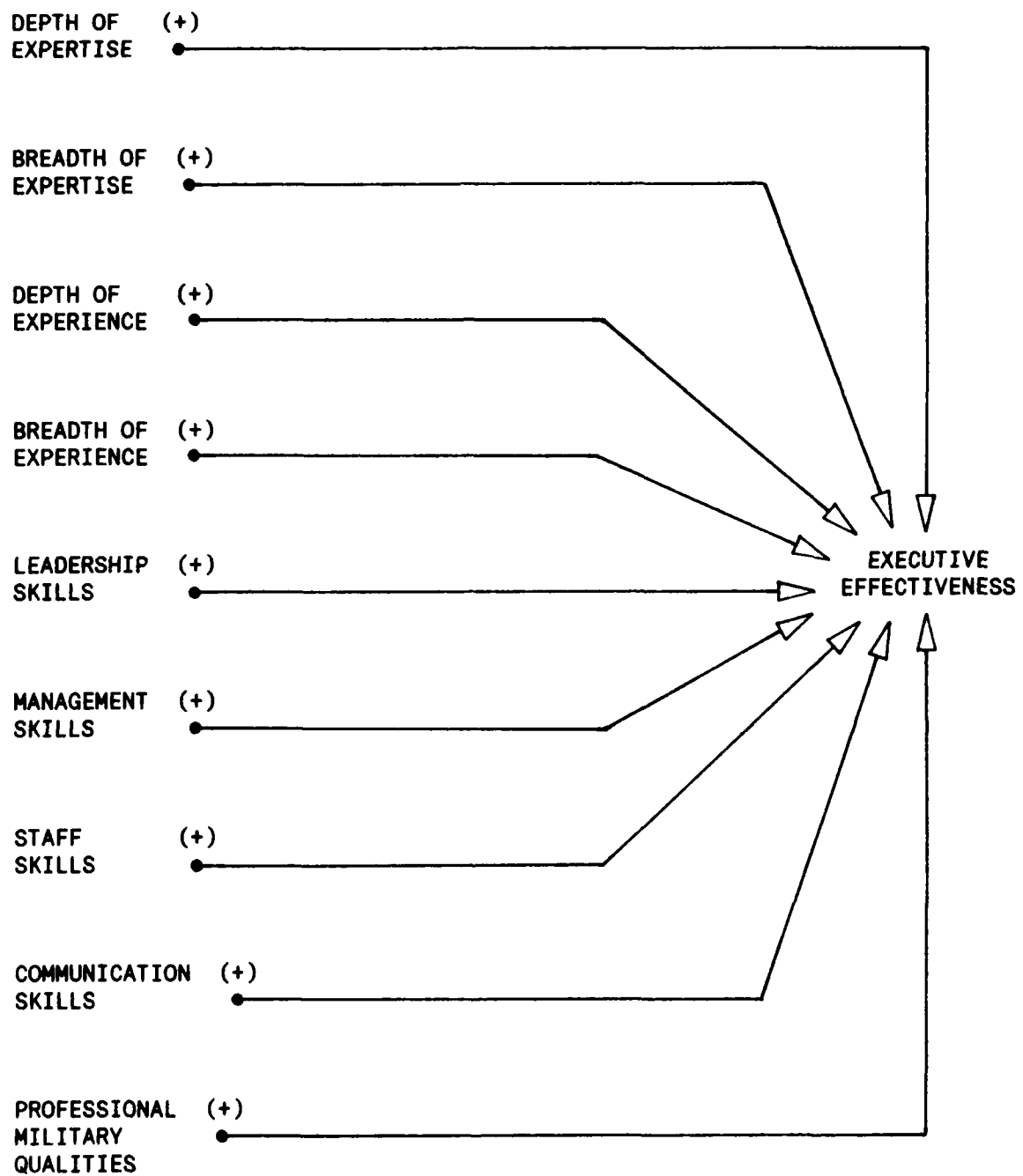
Figure 3-14:   Air Force Officer Professional Development
Effectiveness Factors

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boards selected pilots for promotion to colonel at a significantly greater rate than nonrated officers. This difference was especially pronounced for those officers being considered for early promotion. It is interesting to note that nonrated/mission support officers were selected at a significantly greater rate than were navigators.(034; 035; 036) Comparable demographic analysis (apparently) could not be furnished for general officer selection boards.

Pursuing this same general line of inquiry, the formal charges (instructions) given to these promotion selection boards were reviewed. In general, they were consistent with the guidance provided in AFR 36-10 and AFR 36-23. Board members were charged to use the "whole person concept" and (subjectively) consider factors such as "...professional competence, job performance, leadership, breadth of experience, job responsibility, academic and professional education, and specific achievements." (086)

It is apparent from the foregoing discussion that an officer's professional military competence, i.e., his/her understanding of and ability apply military arts and sciences, is one important area of executive effectiveness. In the process of acquiring those skills, an officer functioning at the executive level is generally expected to have completed professional military education through senior service school. In the Air Force, that means the officer would generally have completed Squadron Officer School (SOS), Air Command and Staff College (ACSC) and the Air War College (AWC), or other comparable schools. In that context, it is at the senior service school level that the officer studies executive-level military

concepts and issues. As such, the AWC curriculum constitutes a de facto (albeit indirect) statement by the Air Force of the specific military subjects the executive-level officer is expected to master, i.e., those areas of military knowledge considered important to effective executive-level performance. Figure 3-15 illustrates the current (1988-1989) AWC curriculum in the format of an influence diagram (011).

The majority of Air Force officers selected to complete senior service school in residence attend the Air War College. However, a number of Air Force officers are also selected to attend the other senior service schools, i.e., the National War College, the Industrial College of the Armed Forces, the Army War College and the Navy War College. The respective curricula for these schools are described in Figures 3-16 through 3-19 (143; 043; 145). Again, it can be asserted that these curricula represent an indirect, but de facto, statement of those specific areas of military science expertise/competence that the Department of Defense and the respective services value and believe their senior officers should master to be effective in executive-level positions.

General Galvin, Commander in Chief, U.S. European Command, asserts that military executives should be systematically developed through a process involving self-development, in-unit education, and formal schooling (075). Galvin identifies some twenty factors or roles which he asserts are essential to military executive effectiveness. These factors/roles are described in the influence diagram shown in Figure 3-20.

MILITARY STRATEGY AND FORCE EMPLOYMENT (+)
* Military Strategy Analysis
* General Purpose Forces Employment
* Strategic Forces Employment
* Space
* Joint Force Application

NATIONAL SECURITY AFFAIRS (+)
* National Security Policy
* Soviet Studies
* Regional Issues

PROFESSIONAL
MILITARY
COMPETENCE

COMMAND AND LEADERSHIP (+)
* Executive Assessment
* Executive Leadership
* Command Environment

OTHER CURRICULUM ACTIVITIES (+)
* Defense Analytical Study
* Elective Courses
* Aerospace Power Symposium
* National Security Forum
* Orientation and Intelligence Briefings

Figure 3-15:   1988-1989 Air War College Curriculum

WAR AND DIPLOMACY (+)
*   Statecraft
*   Art of War

NATIONAL SECURITY POLICY (+)
*   Congress and the Presidency
*   National Security Organization
    and Decisionmaking
*   Geostrategic Context

U.S. DEFENSE POLICY AND MILITARY STRATEGY (+)

PROFESSIONAL MILITARY COMPETENCE

EXERCISES AND SIMULATIONS (+)
*   Strategy and Resources Exercise
*   Counterterrorism Simulation
*   Crisis Decision Exercise

JOINT SPECIALTY PROGRAM (+)
*   Introduction to Joint Warfare
*   Joint and Combined Warfare -
    The Operational Level of War

ELECTIVES PROGRAM (+)

Figure 3-16:   1988-1989 National War College Curriculum

DECISIONMAKING (+) •

INTERNATIONAL SECURITY (+)
AND NATIONAL POWER •

FORCE DETERMINATION (+) •

FORCE GENERATION (+) •

PROFESSIONAL
MILITARY
COMPETENCE

FORCE EMPLOYMENT (+) •
(JOINT AND COMBINED WARFIGHTING)

END-OF-YEAR EXERCISE (+) •

RESEARCH PROGRAM (+) •

ELECTIVES PROGRAM (+) •

Figure 3-17: 1988-1989 Industrial College of the Armed Forces Curriculum

THE SENIOR LEADER (+)

WAR, NATIONAL POLICY AND STRATEGY (+)

JOINT FORCES, DOCTRINE AND PLANNING (+)

THE ARMY'S ROLE IN SUPPORT OF (+)
NATIONAL MILITARY STRATEGY

REGIONAL NATIONAL SECURITY STRATEGIES (+)

JOINT AND COMBINED THEATER WARFARE (+)

PROFESSIONAL
MILITARY
COMPETENCE

U.S. GLOBAL MILITARY STRATEGY (+)

NATIONAL SECURITY SEMINAR (+)

SPECIAL THEMES (+)
* The Ethics of the Profession
* The Role of Landpower in
  Military Strategy
* The Role of Congress in National
  Security Planning and Policy
* Joint and Combined Planning
  and Operations
* Effective Oral and
  Written Communications

ADVANCED COURSES PROGRAM (ELECTIVES) (+)

Figure 3-18: 1988-1989 Army War College Curriculum

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FORCE PLANNING (+) •————————————————————————————————————┐

DEFENSE ANALYSIS (+) •————————————————————————————————┐

POLICY MAKING AND (+) •————————————————————————┐
IMPLEMENTATION

MILITARY STRATEGY AND (+) •————————————————┐
OPERATIONAL DOCTRINE

MILITARY FORCES AND TASKING (+) •————————————┐

                                                    PROFESSIONAL
                                                    MILITARY
                                                    COMPETENCE

MILITARY PLANNING AND (+) •————————————————┘
DECISION MAKING

STUDENT RESEARCH INTO MILITARY (+) •————————┘
STRATEGY AND OPERATIONAL ART

WAR GAMING (+) •————————————————————————————┘

ADVANCED RESEARCH (+) •————————————————————————————┘

ELECTIVES (+) •——┘

Figure 3-19:   1988-1989 Naval War College Curriculum

MILITARY STRATEGY (+)

ADMINISTRATOR (+)

LEADER/MOTIVATOR (+)

EXEMPLIFY MILITARY VALUES, (+)
MORES AND TRADITIONS

TEACHER AND TRAINER (+)

BROAD AND BALANCED (+)
THINKER/CONCEPTUALIZER

EXECUTIVE
EFFECTIVENESS

APTITUDE (+)

EXPERIENCE (+)

EDUCATION (+)

UNDERSTANDING OF NATIONAL (+)
STRATEGY AND INTERNATIONAL
ENVIRONMENT

Figure 3-20:   Galvin's Model of Executive Effectiveness
               Factors (Continued on next page)(075)

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APPRECIATION OF THE CONSTRAINTS (+)
ON THE USE OF MILITARY FORCE

UNDERSTANDING OF THE PROCESS (+)
BY WHICH ALLIES AND ADVERSARIES
FORMULATE STRATEGY

KNOWLEDGE OF MILITARY HISTORY (+)

SENSE OF THE PARAMETERS OF (+)
MILITARY OPERATIONS

KNOWLEDGE OF JOINT AND (+)
COMBINED OPERATIONS

EXECUTIVE
EFFECTIVENESS

ABILITY TO EFFECTIVELY (+)
COMMUNICATE

POSSESSES A KEEN MIND, (+)
INTELLECTUAL CURIOSITY,
AND CREATIVE ABILITY

UNDERSTANDING OF THE (+)
SOCIAL DIMENSION OF
WARFARE

ABILITY AT STRUCTURED (+)
AND LOGICAL THINKING

BREADTH OF PERSPECTIVE (+)

Figure 3-20: Galvin's Model of Executive
Effectiveness Factors (075)

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<u>(RQ 1.3.2) What factors affecting executive performance effectiveness</u>
<u>are identified in unofficial publications concerned with the Air Force and</u>
<u>other military organizations?</u>

The literature review conducted for this study identified a number of
unofficial reports and studies concerned with the effectiveness of military
officers serving in executive-level positions.   Several of these were
especially relevant to this research question and will be briefly reviewed
here.

Bjerke, et al. recently (1987) conducted a particularly insightful
critical evaluation of the Navy's Officer Fitness Report (021).   As a part
of this analysis, the researchers compared and contrasted the Navy's officer
effectiveness evaluation system with those of the Air Force, Army, Coast
Guard and selected civilian companies.   The performance factors used in each
of these systems were presented and discussed.   Figures 3-21 through 3-24
are influence diagrams illustrating the asserted relationships between the
selected executive performance factors and executive effectiveness Navy,
Army, Coast Guard and Marine Corps respectively.   These diagrams are
particularly instructive when compared with the Air Force executive
effectiveness factors illustrated in Figure 3-13.

A 1983 study prepared by McBer and Company under contract to the Navy
was particularly relevant to this research (146).   This empirical study
developed a profile of exemplary commanding officers and executive officers,
as contrasted to those commanding/executive officers whose performance was

SPECIFIC ASPECTS OF PERFORMANCE (+)
* Goal Setting and Achievement
* Subordinate Management and
  development
* Working relations
* Equipment and material
  Management
* Navy organization support
* Response in stressful
  Situations
* Equal opportunity
* Speaking ability
* Writing ability

WARFARE SPECIALTY SKILLS (+)
* Seamanship
* Airmanship
* Watchstanding

EXECUTIVE
EFFECTIVENESS

MISSION CONTRIBUTION (+)

PERSONAL TRAITS (+)
* Judgment
* Imagination
* Analytic ability
* Personal behavior
* Forcefulness
* Military bearing

Figure 3-21: Navy Officer Effectiveness

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PROFESSIONAL COMPETENCE (+) ──────────────────┐

* Possesses capacity to acquire
  knowledge/grasp concepts
* Demonstrates appropriate
  knowledge and expertise in
  assigned tasks
* Maintains appropriate level
  of physical fitness
* Motivates, challenges and
  develops subordinates
* Performs under physical
  and mental stress
* Encourages candor and
  frankness in subordinates
* Clear and concise written
  communication
* Displays sound judgment
* Seeks self-improvement
* Is adaptable to changing
  situations
* Sets and enforces high
  standards
* Possesses military bearing
  and appearance
* Supports EO/EEO
* Clear and concise in oral
  communication

**EXECUTIVE
EFFECTIVENESS**

PROFESSIONAL ETHICS (+) ──────────────────────┘

* Dedication
* Responsibility
* Loyalty
* Discipline
* Integrity
* Moral courage
* Selflessness
* Moral standards

Figure 3-22: Army Officer Effectiveness

PERFORMANCE OF DUTIES (+)
* Being prepared
* Using resources
* Getting results
* Responsiveness
* Professional Expertise

INTERPERSONAL RELATIONS (+)
* Working with others
* Human relations

LEADERSHIP SKILLS (+)
* Looking out for others
* Developing subordinates
* Directing others
* Evaluating subordinates

EXECUTIVE EFFECTIVENESS

COMMUNICATION SKILLS (+)
* Speaking and listening
* Writing
* Articulating ideas

PERSONAL QUALITIES (+)
* Initiative
* Judgment
* Responsibility
* Stamina
* Sobriety

REPRESENTING THE COAST GUARD (+)
* Appearance
* Customs and courtesies
* Professionalism
* Dealing with the public

Figure 3-23:   Coast Guard Officer Effectiveness

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PERFORMANCE (+) •————————————

* Regular duties
* Additional duties
* Administrative duties
* Handling officers
* Handling enlisted personnel
* Training personnel
* Tactical handling of troops

**EXECUTIVE
EFFECTIVENESS**

QUALITIES (+) •————————————

* Endurance
* Personal appearance
* Military presence
* Attention to duty
* Cooperation
* Initiative
* Judgment
* Presence of mind
* Force
* Leadership
* Loyalty
* Personal relations
* Economy of management
* Growth potential

Figure 3-24: Marine Corps Officer Effectiveness

not as effective. The purpose of the study was to identify those factors which contribute to performance effectiveness at the senior/executive level and which differentiate or discriminate between high performers and average/low performers at this level of responsibility and authority. The total sample size (N) for this study was 89, including 47 commanding officers and 42 executive officers. Each of the subjects was classified as being in one of two groups, i.e., high performers and average performers, using standard Navy performance ratings and other criteria provided by the Navy. Data were collected through a structured interview technique using the Behavioral Event Interview (146:4). Thirty of the 89 interviews were subsequently used to construct a theoretical model. The researchers postulated a model involving some 11 executive effectiveness factors which they labeled competencies. In the context of the McBer study, a competency refers to a kind of knowledge, a type of skill, a motive, a value, or other characteristic that is directly associated with performance effectiveness. For each competency factor, they also identified several related indicators, i.e., methods by which the subjects displayed the particular competency. The model was used to code the remainder of the sample (n=59). For each competency factor, statistically significant differences between the means of the two groups were computed using the standard t-test. Figure 3-25 presents these competency factors and their associated indicators in the form of an influence diagram.

In a related 1985 study, McBer and Company sought to identify those factors affecting organizational effectiveness in the Navy and, specifically, the factors differentiating superior commands from average ones (039). Using

<u>SENSE OF RESPONSIBILITY</u> (+)

* Takes responsibility for own
  or crew's failure or problems

* Takes responsibility for
  unit's reputation or image

* Takes responsibility for the
  safety and well-being of the crew

* Takes actions to promote the
  well-being of the crew's family

<u>POSITIVE EXPECTATIONS</u> (+)

* Has a strong conviction that
  subordinates are valued resources

* Acknowledge's a person's strengths
  as well as shortcomings

* Directly expresses to people the
  belief that they can and will succeed

<u>SENIOR OFFICER</u>
<u>COMPETENCY</u>

<u>INFORMED JUDGMENT</u> (+)

* Forms opinions and makes decisions
  based on information and the
  identification of available facts

* Makes decisions or draws conclusions
  using data and information from
  experience

Figure 3-25: Navy Senior Officer Competency Model
(Continued on next page)

65

<u>CONCEPTUALIZATION</u> (+)

* Identifies multiple causes for an event, situation or behavior

* Interprets meaning of nonverbal cues

* Identifies trends in events or patterns of behavior

* Identifies commonalities or pattern repetitions between old and new situations

* Identifies key differences among situations or between opposing viewpoints

* Grasps *complex or unfamiliar ideas or situations through the use of metaphors and analogies*

<u>SENIOR OFFICER COMPETENCY</u>

<u>USE OF MULTIPLE INFLUENCE STRATEGIES</u> (+)

* Establishes credibility as a leader by displaying own expertise and professionalism

* Influences by consciously modeling expected behaviors

* Influences by appeal to a higher purpose

* Structures situation or environment to influence people's attitudes or behaviors

* Builds and maintains relationships for the purpose of accomplishing some organizational goal

Figure 3-25:   Navy Senior Officer Competency Model
(Continued on next page)

66

COMMAND INFLUENCE (+)

* Visits shops or spaces, or otherwise
  makes self available or visible with
  the express purpose of showing
  interest, concern or appreciation

* Uses symbols to increase morale,
  loyalty or sense of belonging
* Publicizes pleasure of the command
  at an individual's or group's
  performance

* Communicates command standards and
  expectations through publicity
  around their enforcement

CONSCIENTIOUS USE OF DISCIPLINE (+)

* Enforces disciplinary standards

* Despite a concern for the individual's
  future, does not hesitate to exercise
  disciplinary power when harm to ship
  or squadron appears likely

* Uses a threat or dramatic display of
  anger to coerce

SENIOR OFFICER
COMPETENCY

EFFECTIVE COMMUNICATION (+)

* Explains why, shares information,
  communicates the purpose of decisions

* Takes steps to ensure that people
  absorb what is communicated to them

* Tailors communications to people's
  level of understanding

Figure 3-25: Navy Senior Officer Competency Model
(Continued on next page)

67

PLANNING (+)

* Plans beyond the demands of an
  immediate situation or problem

* Sets priorities on level of
  effort to be expended on various
  activities

* Identifies obstacles to progress

* Matches people to jobs to get
  the best performance

* Identifies, and lines up in advance,
  resources (people, programs, funds)
  needed to achieve an objective

* Develops an action plan to reach
  an objective

**SENIOR OFFICER
COMPETENCY**

INITIATIVE (+)

* Introduces new ideas or new
  procedures to the command

* Proposes, to people outside
  own unit, new ideas or better
  ways to proceed

* Acts quickly or immediately
  to resolve problems

* Persists in overcoming obstacles

Figure 3-25: Navy Senior Officer Competency Model
(Continued on next page)

MONITORING FOR RESULTS (+) ●────────────────▷ SENIOR OFFICER
                                                 COMPETENCY

* Actively observes work progress;
  seeks and collects performance
  information

* Evaluates training plans and
  activities, emphasizing
  proficiency and thoroughness

* Sees the information provided
  by inspections and exercises
  as meaningful and useful

* Reviews products or results
  for quality

Figure 3-25: Navy Senior Officer Competency Model

a panel of Navy experts, criteria were established and applied to classify each command as being superior oi average. Each superior command was matched with n average one to control for environmental differences. Data on the commands were collected by researchers who used an extensive program of interviews, field observations and surveys. Upon completion of the data collection phase, the researchers developed a comprehensive conceptual model of "command (organizational) effectiveness." The general formulation of this model was previously presented in Figure 3-10. Figure 3-11 illustrated the role of the commanding officer in this general model and those key factors associated with commanding officers in superior commands. Figure 3-26 restructures this model (in part) as an influence diagram. It is instructive to compare the characteristics of commanding officers in superior commands (Figure 3-26) with the list of competencies of superior senior officers presented in Figure 3-25, noting that both sets of factors were developed by the same research organization.

The literature review conducted for this research also identified several studies which attempted to construct career/qualification or personality profiles of officers selected for promotion to general officer/flag rank. The implication of these studies is that these profiles comprise competency/effectiveness factors valued by the respective service and the Department of Defense. To the extent that selection for flag rank is a valid indicator of executive effectiveness, these profiles provide some insight into those variables associated with executive effectiveness. For example, Ginovsky recently reported an (informal/uncontrolled) analysis of biographical data on the 35 rated Air Force officers included on the January

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COMMAND/ORGANIZATIONAL
EFFECTIVENESS

RELATIONSHIPS ←→ ACTIVITIES

PERSONNEL
EFFECTIVENESS

COMMANDING
OFFICER

OTHER
PERSONNEL

- TARGETS KEY ISSUES

- GETS CREW TO SUPPORT COMMAND PHILOSOPHY

- DEVELOPS THE EXECUTIVE OFFICER

- STAFFS TO OPTIMIZE PERFORMANCE

- GETS OUT AND ABOUT

- BUILDS ESPRIT DE CORPS

- KEEPS HIS COOL

- DEVELOPS STRONG WARDROOM

- VALUES CHIEFS QUARTERS

- LINKS TRAINING TO COMBAT READINESS

- BUILDS POSITIVE EXTERNAL RELATIONSHIPS

- INFLUENCES SUCCESSFULLY

Figure 3-26:   Factors Distinguishing Commanding Officers in
Superior Commands in the Navy

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1987 brigadier general selection list (077). Ginovsky's profile of the "typical" general-selectee identified the following descriptive statistics on this sample:

- Male

- Married

- Spent the majority of his career in the cockpit or directing flying units

- Vietnam veteran with about 185 combat missions and 4,000 flying hours

- Three of four were flying squadron commanders

- Most were wing commanders

- At least one tour on the Air Staff in the Pentagon or on a major flying command staff

- Three of four were instructor pilots or standardization and evaluation flight examiners

- Ten (of 35) commanded overseas flying units

- Served an average of 11.5 years before completing intermediate service school

- Twenty-six (of 35) earned graduate degrees

- Awards/decorations typically include: the Legion of Merit, Distinguished Flying Cross, Meritorious Service Medal and Air Medal with about 11 oak leaf clusters

- Career follows the pattern "depth, then breadth" (the pattern now being advocated under the new officer professional development program)

- Career path first emphasizes flying, then broadened to include academic and professional military education; later, it includes one or more assignments away from flying. Typically:

-- Lieutenant: Basic flight training and major weapon system training, followed by operational flying

-- Captain: Continued operational flying, followed by Squadron Officer School, then a full tour of operational flying or flight instructor duty; some senior captains were assigned to the rated supplement or staff duty

-- Major: Intermediate service school, followed by assignments to staffs, the rated supplement or more flying, with a larger percentage going to non-flying duties and senior captains

-- Lieutenant colonel: Fairly even chance of assignment to a non-flying staff or the rated supplement, though the majority are still assigned to flying units; senior lieutenant colonels attend senior service schools

-- Colonel: An even chance of assignment to a non-flying staff, rated supplement or flying command staff positions

- The type of aircraft flown and the source of commission were not significant factors

- Fifteen attended Air War College, 12 attended the National War College and 11 attended the Industrial College of the Armed Forces (either as their highest service school or in addition to another senior service school)

Figure 3-27 is an influence diagram that relates Ginovsky's profile to the probability of being selected for promotion to general officer. As previously noted, the underlying assumption or inference is that selection for flag rank is a valid and reliable indicator of executive effectiveness. Implicit, but unstated, in Ginovsky's model is that the officer succeeded, i.e., performed effectively, in his assignments leading up to selection for promotion to flag rank.

Another recent (1987) study by Derrick presented a description and analysis of several personality, attitudinal, vocational interest and behavioral measures collected on 163 U.S. Army general officers (047). In addition to attempting to build a comprehensive profile of these successful (and presumedly effective) senior officers, Derrick also attempted to associate these profile factors with promotion success. This study is especially noteworthy because of its rigor, depth of analysis and sample size from this particularly relevant population. Derrick (an Air Force active duty officer) was a research associate at the not-for-profit Center for Creative Leadership. The Army sends all of its recently-promoted brigadier generals and selected more senior generals to the Center's Leadership Development Program (LDP). Because of the significance of this study, it will be reviewed here in some detail. Selected data and statistics pertaining to the Derrick study have been included in Appendix B.

The LDP is structured primarily for executive-level leaders/managers in both private and public sector organizations. The program comprises ten independent, but complementing, modules that deal with topics such as

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DEMOGRAPHICS (+)

*   Gender (male/female)

*   Marital status

*   Aeronautical rating

EXPERTISE/EFFECTIVENESS AND EXPERIENCE (+)

*   Combat

*   Command (squadron/wing)

*   Staff

*   Flying

*   Variety of assignments

PROBABILITY
OF SELECTION
FOR PROMOTION
TO GENERAL

EDUCATION (+)

*   Academic

*   Professional military

OTHER (+)

*   Awards and decorations
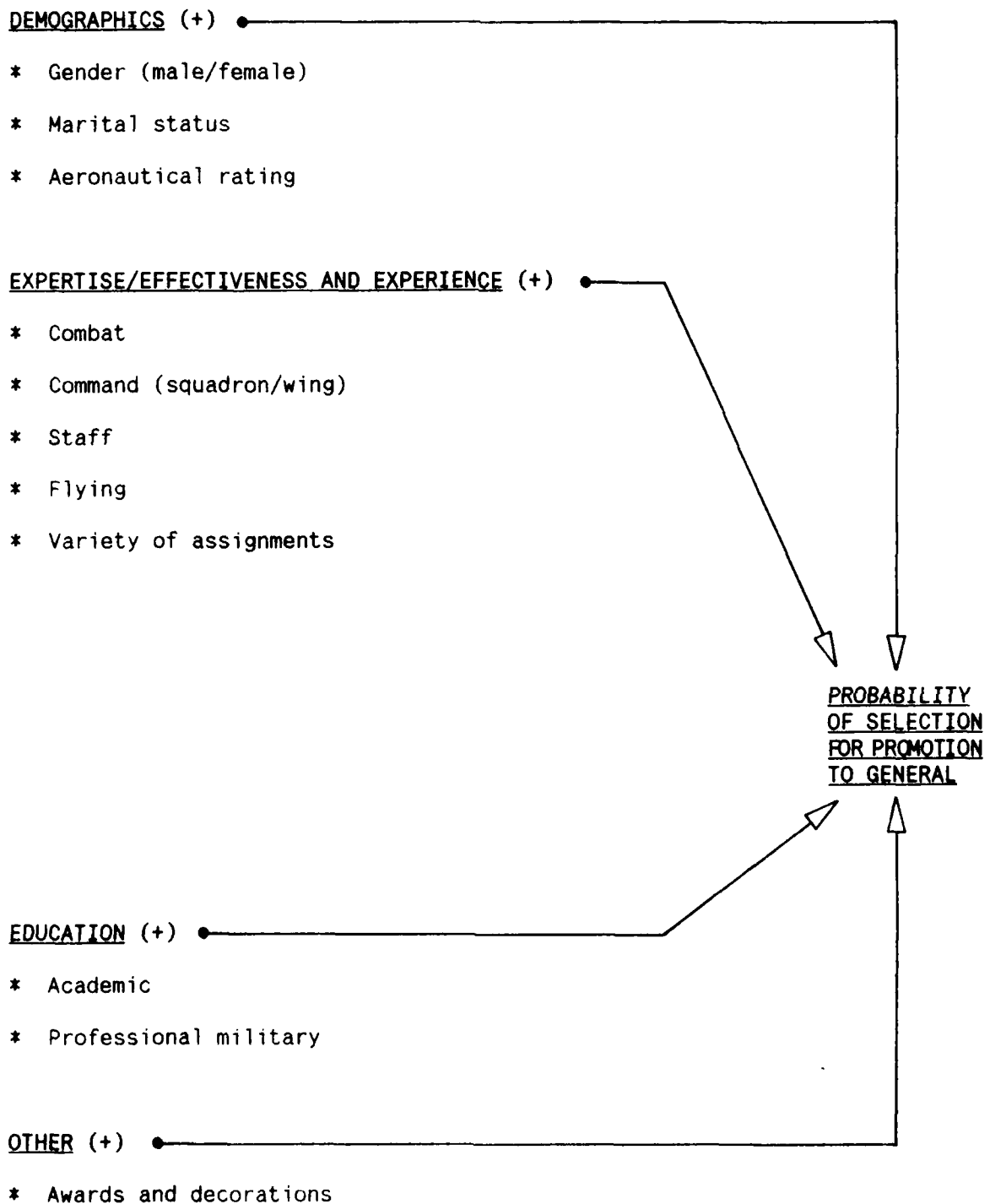
Figure 3-27: Air Force General Officer Selection Factors

decision-making models, leadership models, behavioral assessment exercises, executive development and derailment, and goal setting. The general purpose of the course is to help participants better understand their own values, personalities, strengths and weaknesses, in both an absolute/independent sense and relative to the values and goals of the organizations in which they work. The LDP includes the application of nine profile instruments, each of which has been extensively validated. These instruments are briefly described in Appendix B-2.

The study also compared the general officers as a group with two other comparison groups. The first group consisted of 139 senior corporate executives, i.e., personnel who held the title of Chief Executive Officer, President or Vice President. The second group consisted of a sample of 1,002 subjects representing all other personnel attending the LDP. The respective profiles constructed for each of the three groups provides some interesting insights into the nature of (Army) general officers and how they compare with: (1) their civilian senior executive counterparts and (2) a more general population of subordinate (civilian) leaders/managers.

In presenting his derived profile, Derrick properly cautions the reader to be aware of the large variations within the general officer group, i.e., many individual subjects in the group varied significantly from the group's norms on the respective measures. Notwithstanding that caution, the profile that emerges from this study is instructive to the extent that it highlights general personality and behavioral characteristics of those senior officers that the Army has recognized as being especially effective and competent at

the executive level. Derrick offers the following profile:

- Male

- White

- Very well educated

- Well above average in intelligence

- They value leadership activities and see themselves strong leaders

- They have a strong, positive self-image

- Self-confident

- Outgoing

- The value common sense, dependability and a realistic perspective

- They are comfortable in working in both structured and unstructured environments, but prefer the predictability of the former

- They prefer to deal with facts, use logic, be organized and focus on one target at a time

- They are not particularly adaptable in changing intellectual styles

- They have little use for intuition or emotion when solving problems

- They are not especially creative or imaginative

- They have a limited interest in the "softer" aspects of life, e.g., music and art

- They prefer and value being in control

- They are often reluctant to express affection towards others

- They are very satisfied with what they do, whom they work for and with, and where their careers might take them

Derrick also offers a number of other very general observations and conclusions. First, he notes that the general officer group is far more

similar to the corporate executive and the LDP norm group than it is different. Most significant differences occurred in comparison with the norm group. The general officer group appeared to be very similar to the corporate executive group. Secondly, Derrick asserts that where differences in traits and attitudes do occur, they tend to be in the "favorable" direction (e.g., education, self-confidence, leadership ability, dependability, job satisfaction, etc.). Finally, he notes that when the general officer group had low or neutral scores on dimensions generally considered to be desirable, those scores are very similar to the scores from the other two comparison groups. Derrick's study did not identify significant associations between the respective profile measures and promotion success within the general officer group. Figure 3-28 presents an influence diagram which associates the profile derived by Derrick with the probability of selection for general officer rank. To reiterate a point made previously, this is significant in the context of this study to the extent selection for promotion to flag rank is a valid and reliable indicator of executive effectiveness. Also, the significance of the model presented in Figure 3-28 is relative to the extent that Army general officers are representative of Air Force general officers and, indirectly, those qualifications and characteristics (i.e., executive effectiveness factors) valued by the Air Force as an institution.

No sample of the literature on excellence in (senior) military leadership would be complete without at least a reference to the Von Clausewitz classic On War.(038) Writing on "military genius," Von Clausewitz identified a number of factors which he attributed to exceptional

GENDER (+) ●

RACE (+) ●

INTELLIGENCE (+) ●

EDUCATION (+) ●

PROBABILITY
OF SELECTION
FOR PROMOTION
TO GENERAL

SELF-PERCEPTION (+) ●
AS A LEADER

POSITIVE (+) ●
SELF-IMAGE

SELF-CONFIDENCE (+) ●

EXTROVERSION (+) ●
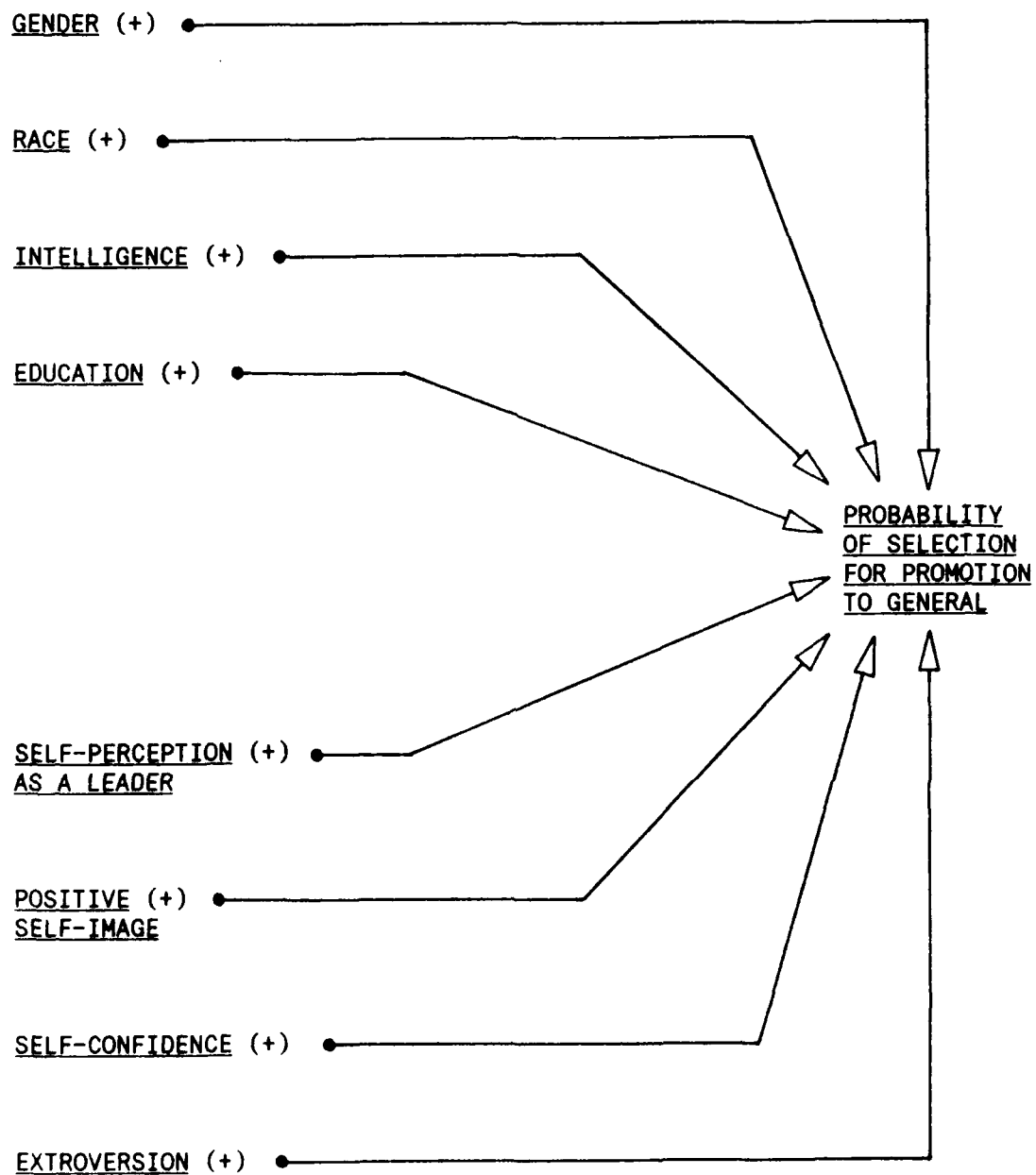
Figure 3-28:   Army General Officer Selection Factors
(Continued on next page)

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SATISFACTION WITH (+)
JOB AND CAREER

PREFERENCE FOR: (+)
* Common sense
* Dependability
* Realistic perspective
* Structured environment
* Facts
* Logic
* Focus on one problem
  at a time
* A consistent intellectual
  style
* Control of the situation

PROBABILITY
OF SELECTION
FOR PROMOTION
TO GENERAL

LACK OF PREFERENCE FOR/ABILITY AT: (+)
* Intuition or emotion in
  problem solving
* Creativity and imagination
* Expressing affection

Figure 3-28: Army General Officer Selection Factors

80
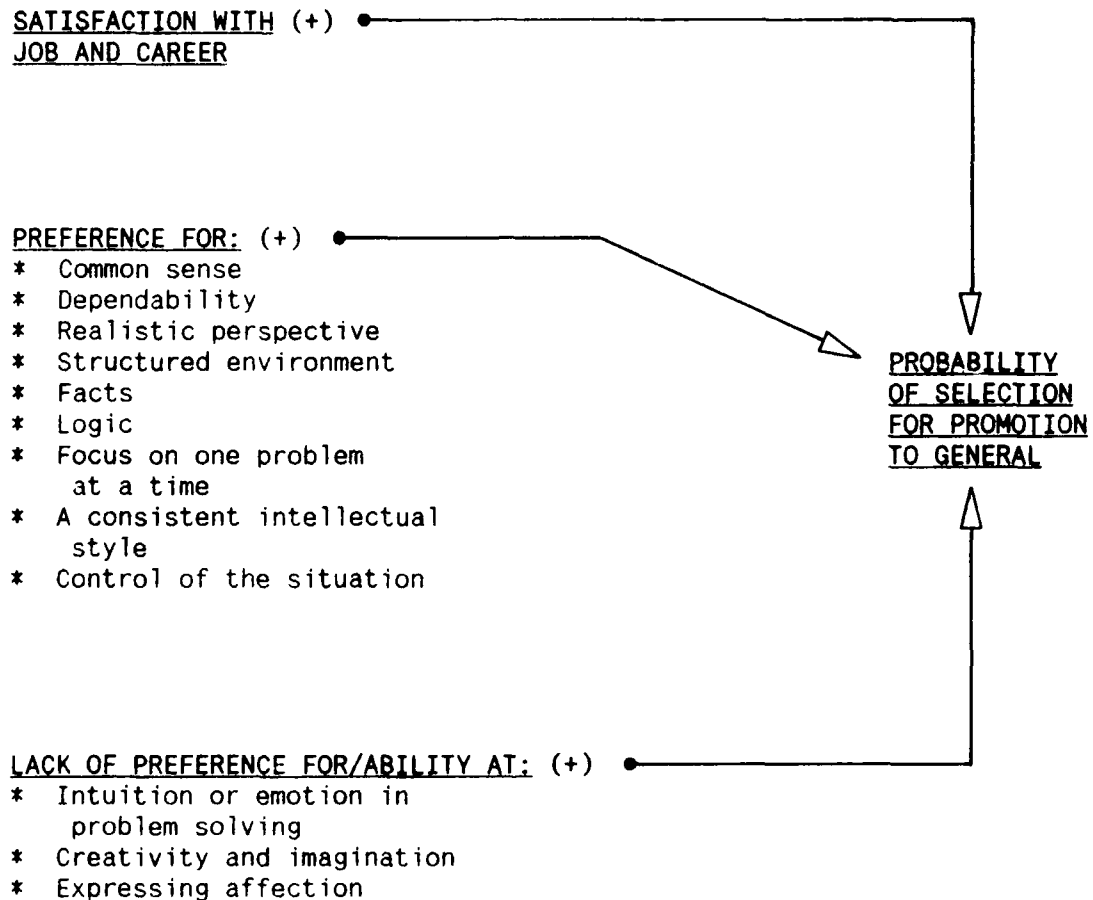
performance by senior military professionals. These include:

- Courage:

    -- In the face of personal danger

    -- To accept responsibility

- Powers of intellect/inte.ligence:

    -- Ability to deal with uncertainty

    -- Sensitive and discriminating judgment

    -- Determination

    -- Presence of mind: ability to deal with the unexpected

- Physical, mental and emotional strength and energy

- Need for honor and renown

- Staunchness

- Endurance

- Character (stability and consistency)

- Ability to deal with stress (self control)

- Competitiveness

- Inventiveness

- Sense of locality

- Imagination

- Thorough grasp of national policy

- Intuition

- Inquisitiveness

- Decisiveness

- Knowledge of military sciences

Von Clausewitz emphasizes that it is the balanced combination of all these factors that leads to "military genius." Figure 3-29 presents the Von Clausewitz model as an influence diagram.

COURAGE (+)

INTELLIGENCE (+)

STRENGTH/ENERGY (+)

NEED FOR HONOR AND RENOWN (+)

STAUNCHNESS (+)

ENDURANCE (+)

CHARACTER (STABILITY & CONSISTENCY) (+)

SELF CONTROL (+)

COMPETITIVENESS (+)

MILITARY
GENIUS

INVENTIVENESS (+)

SENSE OF LOCALITY (+)

IMAGINATION (+)

GRASP OF NATIONAL POLICY (+)

INTUITION (+)

INQUISITIVENESS (+)

DECISIVENESS (+)

KNOWLEDGE OF MILITARY SCIENCES (+)
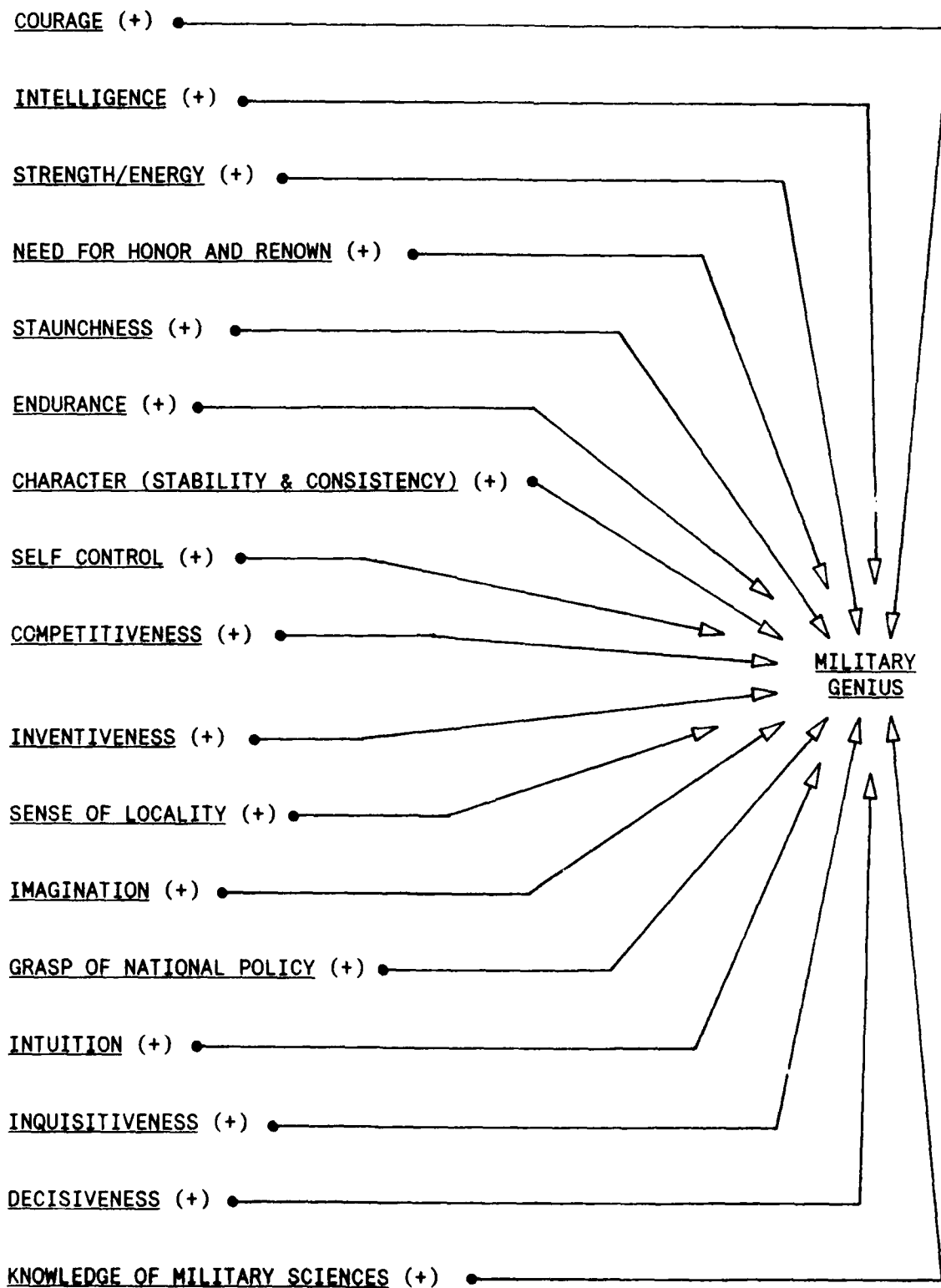
Figure 3-29: Von Clausewitz Model of Military Genius

(RQ 1.3.3) **What factors affecting executive performance effectiveness**
are identified in unofficial publications concerned with organizations in
general, i.e., with non-military private and public sector organizations?

The general literature on leadership, management and executive
development identifies, directly and by inference, an extensive list of
factors asserted to be directly or inversely correlated with executive-level
performance. Some of these asserted relationships are supported by empirical
evidence, while others are supported primarily by "expert opinion."
Typically, this "expert testimony" is offered by either academics or by
successful senior executives (i.e., practitioners). To the extent that the
Air Force is similar to, and representative of, other large, complex
organizations, it can be asserted with comparable validity that these factors
are also relevant to executive effectiveness in the Air Force.

One research tactic employed in this study to focus somewhat more
directly on those general executive performance factors that are valued by
the Air Force was to examine the nature of the executive development programs
to which the Air Force sends its senior officers and civilians. For the most
part, these programs are offered by civilian universities. Through contact
with the Military Personnel Center and appropriate offices on the Air Staff,
those executive development programs and schools to which the Air Force sends
its senior officers and civilians were identified. Descriptive literature
for each of these programs was subsequently obtained from each institution
and critically examined to identify program objectives and topics. The logic
for this review is that these objectives and topics represent, de facto,

those executive skills, qualifications and characteristics considered to be important by both the institutions which developed the programs and, more importantly, the variety of client organizations (including the Air Force and other military services) which send their executive personnel to these programs. By sending its senior officers to these programs, the Air Force is, at least indirectly, making a de facto indorsement of these programs, and their respective curricula, as being relevant and responsive to its executive development needs. Appendix A presents a summary of these universities, programs, objectives and curricula. Figure 3-30 is a comprehensive influence diagram that attempts to synthesize the factors identified in these executive development programs as being related to executive effectiveness in large, complex organizations.

Labich recently surveyed a number of chief executive officers of major civilian corporations to identify what they believed to be keys to successful leadership at the executive level.(101) Synthesizing the results of his survey, Labich identified seven primary factors as directly and strongly related to executive effectiveness. These factors are illustrated in the influence diagram of Figure 3-31.

McClelland and Burnham, investigating the need for power, determined that male managers scored higher on this power motive than did men in general.(127) Even more significant, these researchers found a positive correlation between the power motive and managerial effectiveness. They demonstrated that the need for power is even more strongly associated with managerial success than is the need for achievement.

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UNDERSTANDING OF THE ORGANIZATION'S (+)
ENVIRONMENT (e.g.):
* Economic
* Political
* Legal-Regulatory
* Technological
* Social-Cultural
* Competitive

ANALYTICAL EFFECTIVENESS (e.g.): (+)
* Ability to Conceptualize
* Problem-solving
* Decision-making Under
  Conditions of Risk and
  Uncertainty/Ambiguity
* Ability to Deal With
  Complexity
* Group decision-making
* Forecasting
* Integration and Synthesizing

EXECUTIVE
EFFECTIVENESS

INFORMATION MANAGEMENT EFFECTIVENESS (e.g.): (+)
* Computer Systems
* Management Cybernetics
  and Control Systems
* Data vs. Information

EFFECTIVENESS IN COPING WITH (+)
AND MANAGING CHANGE

Figure 3-30:   Factors Affecting Executive Effectiveness
               Derived From Civilian Executive Development Programs
               (Continued on next page)

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<u>EFFECTIVENESS AT CREATING A</u> (+) ●
<u>VISION AND SETTING STRATEGIC</u>
<u>GOALS/OBJECTIVES</u>

<u>STRATEGIC PLANNING EFFECTIVENESS</u> (+) ●

<u>POLICY FORMULATION EFFECTIVENESS</u> (+) ●

<u>PRODUCTION/OPERATIONS MANAGEMENT</u> (+) ●
<u>EFFECTIVENESS (e.g.):</u>
* Product/Service Development
* Quality Management
* Productivity
* Scheduling

<u>EXECUTIVE</u>
<u>EFFECTIVENESS</u>

<u>FINANCIAL MANAGEMENT EFFECTIVENESS</u> (+) ●

<u>ASSESSING ORGANIZATIONAL EFFECTIVENESS (e.g.):</u> (+) ●
* Accounting
* Control Systems

<u>COMMUNICATION EFFECTIVENESS (e.g.):</u> (+) ●
* Listening
* Speaking
* Writing
* Media Relations

Figure 3-30:   Factors Affecting Executive Effectiveness
Derived From Civilian Executive Development Programs
(Continued on next page)

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MARKETING EFFECTIVENESS (e.g.): (+)
* Promotion/Advertising
* Sales
* Inventory
* Distribution
* Pricing

LEADERSHIP EFFECTIVENESS (+)

EXECUTIVE EFFECTIVENESS

HUMAN RESOURCE MANAGEMENT (+)
EFFECTIVENESS (e.g.):
* Individual and Group Motivation
* Human Relations Skills
* Organization Climate and Culture
* Personal/group Values
* Personality Characteristics
* Organizational Development and Team Building
* Personnel Assessment and Development
* Creativity, Imagination and Innovation
* Conflict Management and Negotiation
* Rewards, Recognition and Compensation
* Power and Politics
* Succession Planning

Figure 3 30: Factors Affecting Executive Effectiveness
Derived From Civilian Executive Development Programs
(Continued on next page)

ORGANIZING EFFECTIVENESS (+) ●

ETHICS AND SENSE OF (+)
SOCIAL RESPONSIBILITY ●

TIME MANAGEMENT EFFECTIVENESS (+) ●

EXECUTIVE
EFFECTIVENESS

EXECUTIVE HEALTH AND FITNESS (+) ●

STRESS MANAGEMENT (+) ●

ENTREPRENEURSHIP (+) ●

Figure 3-30: Factors Affecting Executive Effectiveness
Derived From Civilian Executive Development Programs

89

TRUST OF SUBORDINATES (+)

DEVELOP A VISION (+)

KEEPING YOUR COOL (+)

ENCOURAGING RISK (+)

EXECUTIVE (+)
EFFECTIVENESS

BE AN EXPERT (+)

INVITE DISSENT (+)

SIMPLIFY (+)

EXECUTIVE
EFFECTIVENESS

Figure 3-31:   Factors Affecting Executive Effectiveness(101)

90

In contrast to the vast majority of the general literature surveyed to answer this research question, Mintzberg's frequently-cited 1973 empirical study investigated and described what chief executives actually do on the job.(135) He derived ten general managerial roles into which he partitioned all of the activities he observed in his research. In the context of this study, the executive's effectiveness in accomplishing these respective roles determine overall executive effectiveness. These roles are illustrated in the influence diagram of Figure 3-32. Appendix C contains a more complete description of these managerial roles and related propositions about these roles.

Burck surveyed 800 senior executives to determine a general descriptive profile of executive characteristics.(028) His sample included the chief executives of the 500 top industrial corporations in the United States and the 300 executives who direct the 50 largest commercial banking companies, life insurance firms, diversified financial enterprises, retailers, transportation companies and utilities in the country. Based on his survey, Burck concluded that the "typical" chief executive in the U.S. can be described by the following profile:

- Gender: Male

- Race: White

- Median Age: 54

- Background Economic Status: Middle class

- Religion: Episcopalian or Presbyterian

- Where Born: Middle West

INTERPERSONAL ROLES (+)

* Figurehead

* Leader

* Liaison

INFORMATIONAL ROLES (+)

* Monitor

* Disseminator

* Spokesman

EXECUTIVE
EFFECTIVENESS

DECISIONAL ROLES (+)

* Entrepreneur

* Disturbance Handler

* Resource Allocator

* Negotiator
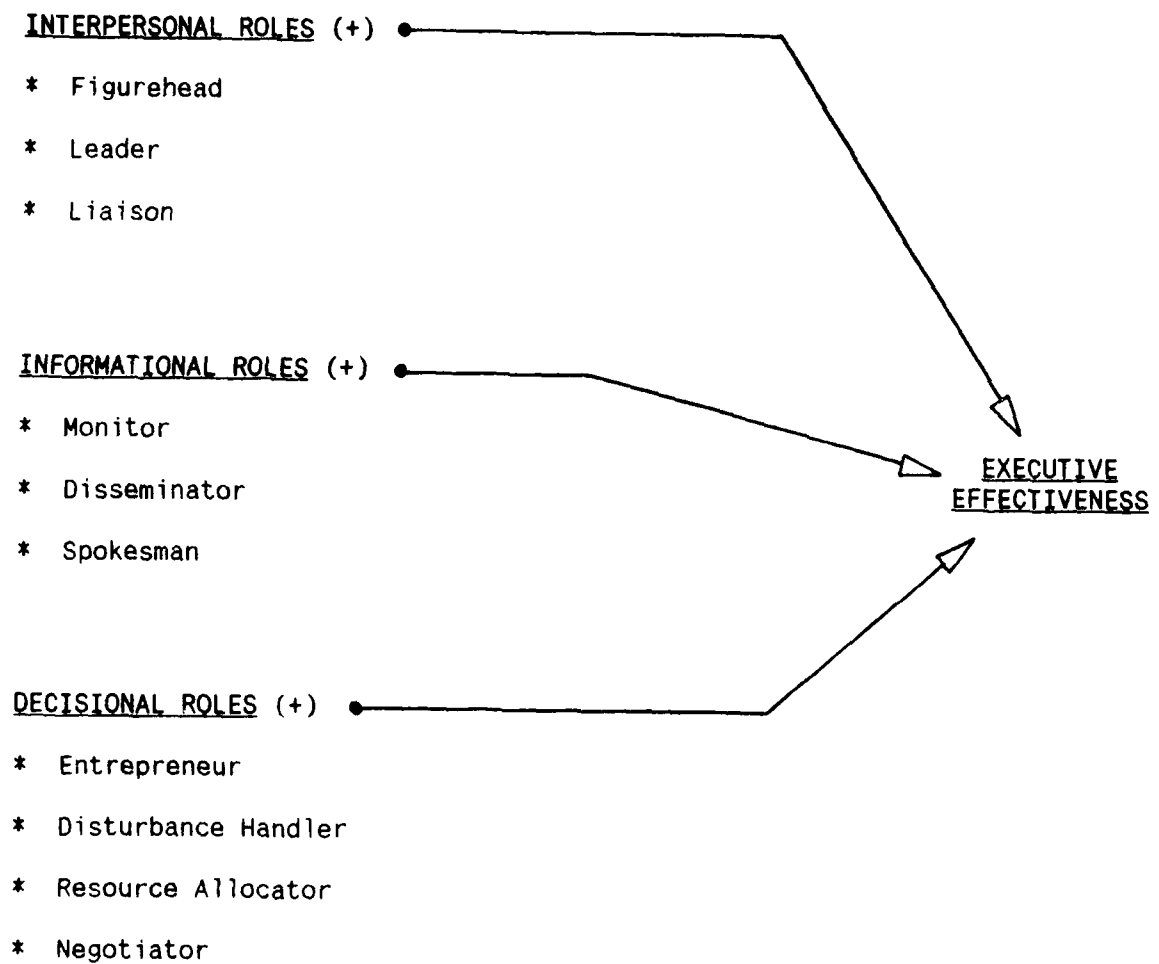
Figure 3-32: Mintzberg's Model of Managerial Roles
and Executive Effectiveness (135)

-   Highest Level of Education: Undergraduate college degree in business administration (however, an almost equal percentage had a master's degree in business administration or related areas)

-   Main Career Emphasis: Marketing/distribution or financial

-   Workweek: 55 hours

-   Political Party Affiliation: Republican

-   Political Philosophy: Moderate (i.e., middle-of-the-road vs. conservative or liberal)

-   Number of Companies Worked For: One

-   Crucial Factor in Success:

    --   Experience in a wide variety of divisions within the present organization

    --   Broad foundation in management theory and practice

    --   Organizational skills

-   Self-image: Professional manager

It should not be concluded that each of these characteristics is necessarily an executive effectiveness factor as defined in this study, particularly in the sense that the relationship between a particular factor and executive effectiveness is _sequential_. For some of these relationships (e.g., gender, race, religion, etc.), the relationships can, at best, be asserted to be categorical/associative.

Levinson, a well known and widely-published management psychologist, has identified some 20 "dimensions of personality" which he asserts are (senior) executive effectiveness factors.(104)   For each of these factors/dimensions, he has also developed an associated five-point verbal scale.   Levinson's

factors are based on his rather extensive experience. He acknowledges that there is no universal agreement on the validity of these factors and that they were not empirically derived or statistically validated. These factors are illustrated in the influence diagram in Figure 3-33. Levinson also points out that it is unrealistic to assume that a particular individual will necessarily rate high on all 20 dimensional factors/scales. He suggests that these dimensions should not be treated as independent factors, but rather as elements of an integrated profile. Levinson further argues that in reality, each (senior) executive position has a relatively unique normative profile, as defined on these 20 dimensions. A particular individual's potential effectiveness in a specific executive position can be assessed by comparing the individual's profile against the normative profile prescribed for that particular position.

Lazer and Wikstrom surveyed 61 business organizations to determine the most commonly used executive performance appraisal factors.(102) Their results are presented as an influence diagram in Figure 3-34. The number in parenthesis presented with each factor indicates the percentage of respondents using that particular factor in their assessment system.
Figure 3-35 presents the results of a similar survey conducted on state government organizations by Feild and Holley (068).

Kaplan, Kofodimos and Drath have also researched the process of executive development, employing a technique they label "biographical action research."(090) They conclude that executives have both external and internal developmental needs. According to these researchers, the external

CAPACITY TO ABSTRACT, CONCEPTUALIZE, (+)
ORGANIZE AND INTEGRATE DIFFERENT DATA
INTO A COHERENT FRAME OF REFERENCE

TOLERANCE FOR AMBIGUITY: (+)
Can stand confusion until things
become clear.

INTELLIGENCE: (+)
Has the capacity not only to abstract,
but also to be practical.

JUDGEMENT: (+)   EXECUTIVE
Knows when to act.   EFFECTIVENESS

AUTHORITY: (+)
Has the feeling that he or she belongs
in the boss's role.

ACTIVITY: (+)
Takes a vigorous orientation to
problems and needs of the organization.

ACHIEVEMENT: (+)
Oriented toward organization's success,
rather than personal aggrandizement.

Figure 3-33: Levinson's Executive Effectiveness
              Factors (104) (Continued on next page)

95

SENSITIVITY: (+)
Able to perceive the
subtlties of others' feelings

INVOLVEMENT: (+)
Sees oneself as a participating
member of an organization.

MATURITY: (+)
Has *good relationships*
with authority figures.

INTERDEPENDENCE: (+)
Accepts appropriate dependency
needs of others as well as of
him or herself.

ARTICULATENESS: (+)
Makes a good impression.

STAMINA: (+)
Has physical as well as mental
energy.

ADAPTABILITY: (+)
Manages stress well.

EXECUTIVE
EFFECTIVENESS

Figure 3-33: Levinson's Executive Effectiveness
Factors (104) (Continued on next page)

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SENSE OF HUMOR: (+)
Doesn't take self too seriously.

VISION: (+)
Is clear about progression of his her
own life and career, as well as where
the organization should go.

PERSEVERANCE: (+)
Able to stick to a task and see it
through regardless of the
difficulties encountered.

EXECUTIVE
EFFECTIVENESS

PERSONAL ORGANIZATION: (+)
Has a good sense of time.

INTEGRITY: (+)
Has a well-established value system
which has been tested in various
ways in the past.

SOCIAL RESPONSIBILITY: (+)
Appreciates the need to assume
leadership with respect to that
responsibility.

Figure 3-33: Levinson's Executive Effectiveness
Factors (104)

KNOWLEDGE OF WORK (80) (+) ●

LEADERSHIP / INFLUENCE (62) (+) ●

INITIATIVE (62) (+) ●

QUALITY OF WORK (61) (+) ●

QUANTITY OF WORK (56) (+) ●

EXECUTIVE
EFFECTIVENESS

COOPERATION (56) (+) ●

JUDGMENT (54) (+) ●

CREATIVITY / RESOURCEFULNESS / (+)
INNOVATIVENESS (51) ●

DEPENDABILITY (51) (+) ●

EVALUATION AND DEVELOPMENT (+)
OF PERSONNEL (46) ●

Figure 3-34:   Performance Appraisal Factors Used in Business(102)

QUALITY OF WORK (59) (+) ●

QUANTITY OF WORK (49) (+) ●

INITIATIVE (44) (+) ●

HUMAN RELATIONS (41) (+) ●

JUDGMENT (36) (+) ●

EXECUTIVE
EFFECTIVENESS

JOB KNOWLEDGE (33) (+) ●

WORK HABITS (33) (+) ●

DEPENDABILITY (31) (+) ●

ORGANIZING AND PLANNING (31) (+) ●

SUPERVISORY ABILITY (21) (+) ●
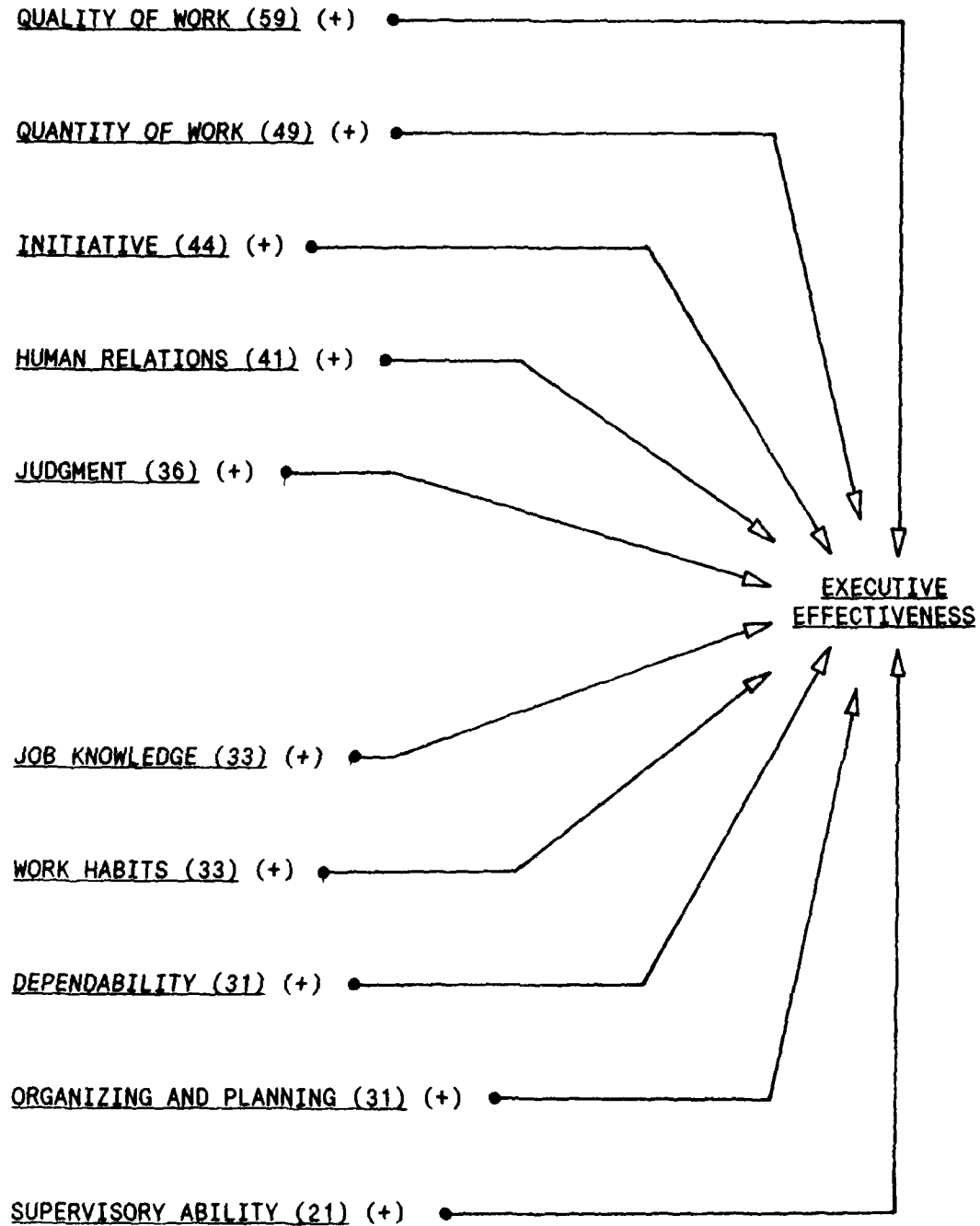
Figure 3-35: Performance Appraisal Factors Used in State Governments (068)

developmental factors refer to critical behaviors affecting performance effectiveness. Figure 3-36 presents an influence diagram that illustrates those external factors which these researchers assert are critical to executive effectiveness.

By contrast, inner developmental factors include the executive's emotions, needs, values and self-perceptions, i.e., those factors which shape and define the executive's personality. Kaplan, et al. suggest that executive personalities can be described and taxonomized along two dimensions: active-passive, which distinguishes the amount of energy and initiative invested in the job; and positive-negative, which differentiates personal attitudes toward the job. A matrix of these two dimensions defines four general personality types, each of which has characteristic strengths and developmental needs. Figure 3-37 illustrates developmental needs associated with each personality type.

STRATEGIC SKILLS (+)
* Creating a strategic vision
* Planful thinking
* Inculcating basic values
* Ability to think strategically
* Ability to manage risk

MANAGING A LARGE ORGANIZATION (+)
* Administrative ability
* Effective delegation
* Communicating effectiveness
* Effectiveness as a figurehead
    and spokesperson

HANDLING SCOPE AND SCALE (+)
* Ability to deal with complexity
* Effectiveness at multidimensional
    thinking
* Transcending functional specialties
* Knowledge of all organizational
    functions and processes

MANAGING A LARGE NETWORK (+)
* Developing contacts inside and
    outside the organization
* Sensitivity to people
* Integrity and trustworthiness
* Use of the entire network

USING POWER WITH FINESSE (+)
* Skill at using power

MANAGING ONESELF IN THE ROLE (+)
* Ability to call on one's skills,
    knowledge, drives, etc.
* Ability to hold in check one's
    limitations

EXECUTIVE
EFFECTIVENESS

Figure 3-36: External Developmental Needs (090)

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ACTIVE - NEGATIVE

* Oriented toward personal ambition
* Moves against people
* Exploitive; elevates oneself at the expense of others
* Tends toward grandiosity
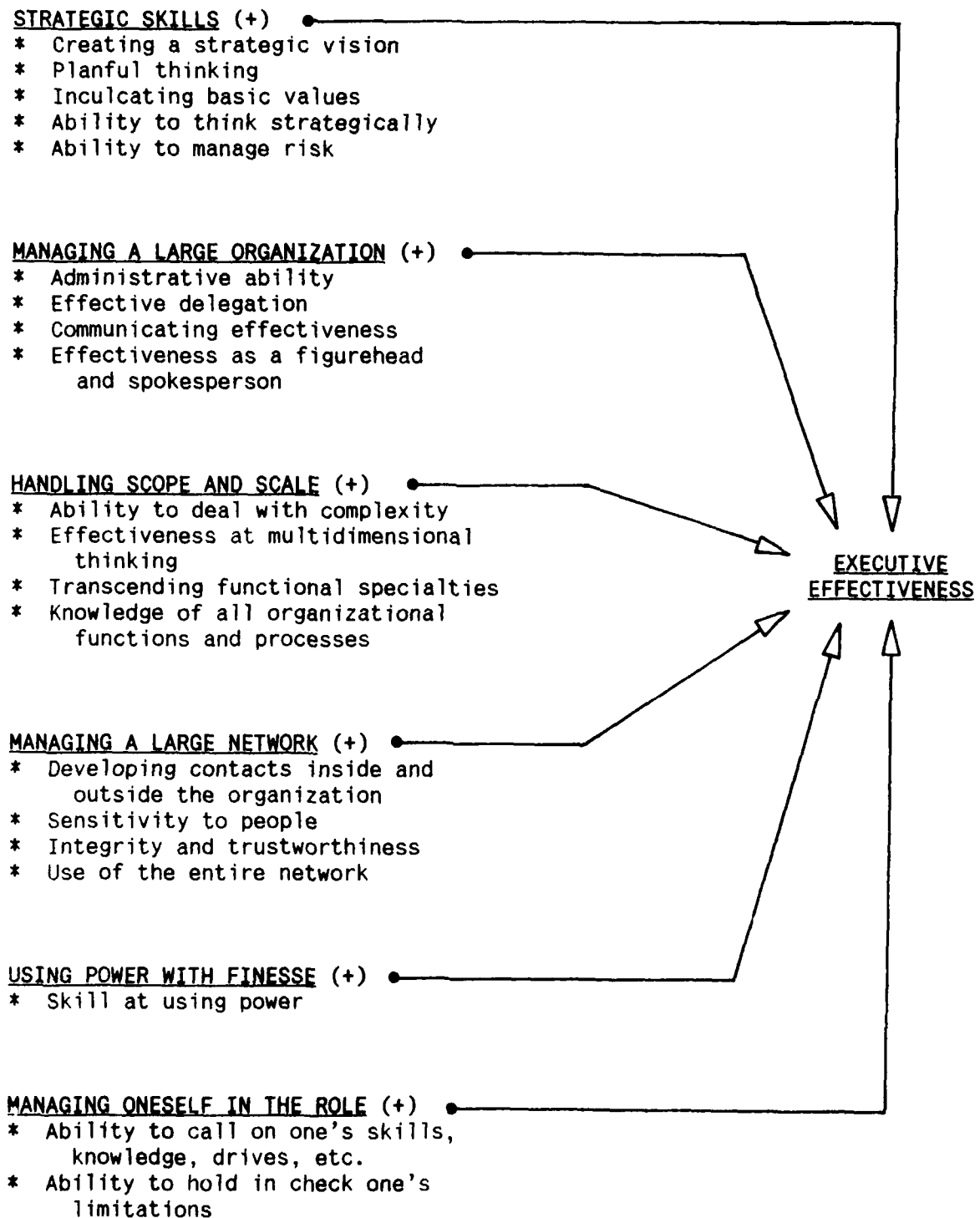* Domineering and abusive
* Overly critical and argumentative
* Overuse and abuse of power
* Encourages conformity and "yesmenship"
* Insensitive to people's needs
* Mistrustful

PASSIVE - NEGATIVE

* Withdrawn and oriented toward minimal performance of duty
* Avoids problems
* Overdelegates
* Relationships with others are cool and distant
* Lack of ambition and lack of striving for achievement
* Avoids conflict
* Doesn't set goals or plan well
* Relationships are emotionally distant

PASSIVE - POSITIVE

* Compliant and oriented toward always being on harmonious terms with others
* Self-effacing and self-critical
* Avoids appearing expansive, superior or aggressive
* Susceptible to feelings of self-doubt
* Overly restrictive in the acquisition and use of power
* Sets organization's sights too low
* Prone to underestimate
* Reluctant to take the initiative
* Indecisive
* Fails to make full use of available resources

ACTIVE - POSITIVE

* Feels superior to others
* Perfectionist
* Can set organizational sights unrealistically high
* Narcissistic
* Compelling need for mastery and competence
* Spreads himself to thinly -- trying to be all things to all people
* Erratic in work habits
* Focused on strategy and the big picture to the exclusion of any focus on detail

Figure 3-37: Internal Developmental Problems/Needs (090)

(RQ 1.4)   Are there any significant differences in executive capabilities
and qualifications required in air force organizations and those required in
non-air force organizations of comparable size and complexity?

(Ho 1.2):   There are no significant differences between the executive
capabilities and qualifications required in Air Force organizations and those
required in non-Air Force organizations of comparable size and complexity.

The literature survey conducted in this study failed to identify any
reported research directly comparing factors affecting the effectiveness of
Air Force executives with executives in other private or public organizations
of comparable size and complexity. Some insight into this question can be
obtained by comparing those factors used in evaluating Air Force executives
(see Figure 3-13) and those factors considered important in the professional
development of Air Force officers (Figure 3-14) with those factors considered
in evaluating the effectiveness of officers of comparable grades in the other
services (see, e.g., Figures 3-21 through 3-28). As might be predicted,
there is a great deal of agreement on those factors considered to account for
most of the variance in executive effectiveness.

Similarly, by comparing those factors contributing significantly to the
effectiveness of Air Force executives with those factors associated with
executive effectiveness in general (i.e., not restricted to either the Air
Force or military organizations), e.g., in Figures 3-30 through 3-35,
provides some additional understanding of this question. A cursory,
subjective analysis of these data suggests there might be somewhat less

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convergence in this comparison than in the comparison between the military services. However, on closer review, it might well be concluded that the apparent differences are generally not particularly significant. Further, this conclusion (of no significant difference) tends to be supported by several other indirectly-related studies. As has already been described, Derrick's comparison of Army general officers with civilian senior executives and a more general population of civilian executives found few significant differences between the three groups (see Appendix B). The variance between the general officer group and the senior civilian executive group was particularly small, suggesting that in most respects, executive effectiveness is largely independent of the type of organization. The discussion in the following section (i.e., on research question 1.5) will point out that by far, most of the variance in the nature of the work done by executives (and by inference, in the factors affecting their effectiveness) is accounted for by the executive's level in the hierarchy and functional responsibility. The implication here is that the factors affecting executive effectiveness at (i.e., within) a particular level, particularly at the more senior levels, are relatively generic.

Two other studies reported by Shartle are also of some relevance on this issue.(069)   In the first, Shartle and his associates analyzed the work patterns of both military (Navy) and civilian executives and identified fourteen activities that accounted for the majority of their efforts. These activities are illustrated in the influence diagram of Figure 3-38. These researchers identified small to moderate differences in the percent of time devoted to a particular activity on only 3 of the 14 activity factors:

INVESTIGATION (+)
AND RESEARCH

PLANNING (+)

PREPARING PROCEDURES (+)

COORDINATION (+)

EVALUATION (+)

INTERPRETATION OF (+)
PLANS AND PROCEDURES

EXECUTIVE
EFFECTIVENESS

SUPERVISION OF (+)
TECHNICAL OPERATIONS

PERSONNEL ACTIVITIES (+)

PUBLIC RELATIONS (+)

PROFESSIONAL CONSULTING (+)

NEGOTIATIONS (+)

SCHEDULING, ROUTING (+)
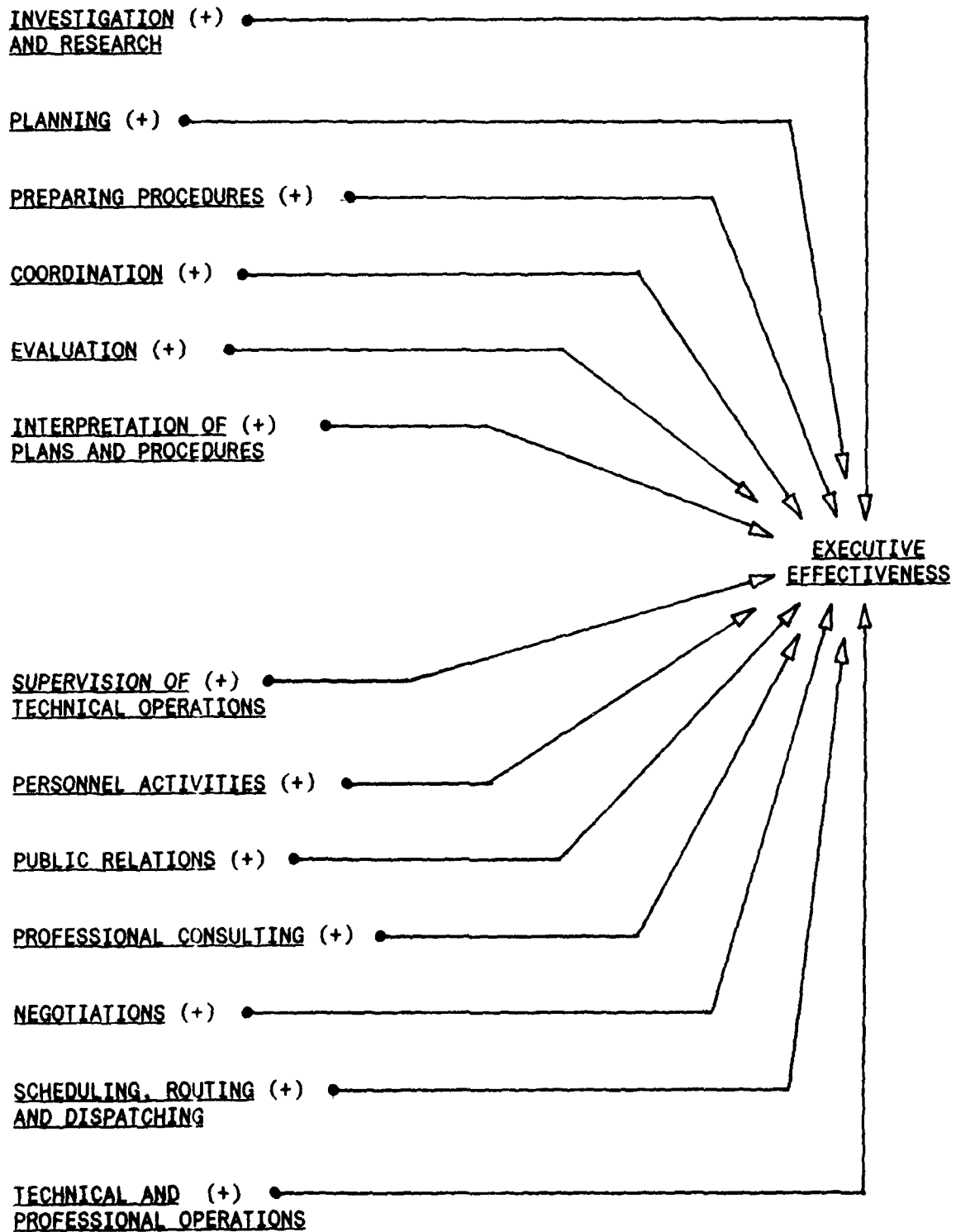AND DISPATCHING

TECHNICAL AND (+)
PROFESSIONAL OPERATIONS

Figure 3-38: Shartle's Model of Executive Effectiveness Factors (069)

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-   Navy executives tended to spend more time than their civilian counterparts in direct inspection and observation of the organization;

-   Business executives spent relatively more time planning activities than did Navy executives; and

-   Business executives spent more time than did Navy executives in evaluation (of reports, policies, standards, etc.)

Fleishman compared executives in four naval and four commercial organizations, surveying 94 naval officers and 218 business executives.(069) Work patterns were compared on a profile of 27 factors. Differences within the naval executive group (14 of 27) and within the commercial executive group (10 of 27) were more pronounced than differences between the naval and business groups (6 of 27). For example, naval officers spent significantly more time consulting assistants, while the business executives spent more time consulting outsiders.

McCauley recently reported the results of survey (opinion/attitude) research into executive development in the U.S.Army.(125) Selected aspects of her research are closely related to several of the research questions in this study and are, therefore, particularly relevant and instructive. One of McCauley's principal research objectives was to identify those competency factors which senior Army officers and their corporate (private-sector) counterparts considered to be the most important for success. Her sample consisted of 35 officers attending the Army War College, 60 corporate managers from various organizational levels, and 70 upper-level corporate executives considered by their respective superiors to be high performers.

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The survey instrument used was the <u>Executive Inventory</u> (EI) developed by researchers at the Center for Creative Leadership (see, e.g., McCall, Lombardo and Morrison, 1988). The EI is completed by the manager and by five of the manager's coworkers (superiors, peers and subordinates) relative to the manager. The EI comprised three major sections. In the first section, respondents were asked the degree to which the manager displayed each of 16 different managerial competencies (using a five-point interval scale). The second section asked the respondent for an opinion concerning the degree to which he/she agreed that each of six particular factors was important in stalling or "derailing" a career. The third section asked the respondents to judge how well he/she could perform in five different job assignments. Two additional questions dealing with problem-solving style and the degree of involvement in managing projects were included in the EI. Finally, respondents were asked to judge which 8 of the 16 competencies listed in the first section of the instrument were most important.

Figure 3-39 presents McCauley's 16 competency factors in the format of an influence diagram. Figure 3-40 compares the perceptions of military and corporate executives the relative importance of the specified competencies. Figure 3-41 presents the comparative rankings by military and civilian executives of the six derailment factors identified in the EI. Figure 3-42 compares the perceptions of military and corporate executives concerning their ability to perform in certain types of jobs. Finally, Figure 3-43 presents the comparison of military and corporate executives on their problem-solving and management styles.

LEADING SUBORDINATES (+)

INTEGRITY (+)

ACTING WITH FLEXIBILITY (+)

SETTING A DEVELOPMENTAL CLIMATE (+)

RESOURCEFULNESS (+)

TEAM ORIENTATION (+)

DECISIVENESS (+)

DO WHATEVER IT TAKES (+)

EXECUTIVE
EFFECTIVENESS

COMPASSION AND SENSITIVITY (+)

BALANCE BETWEEN PERSONAL LIFE AND WORK (+)

BUILDING AND MENDING RELATIONSHIPS (+)

HIRING A TALENTED STAFF (+)

SELF-AWARENESS (+)

CONFRONTING PROBLEM SUBORDINATES (+)

PUTTING PEOPLE AT EASE (+)

QUICK STUDY (+)

Figure 3-39:   Executive Competency Factors in the Executive Inventory

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Priority of Military Executives	Competency	Priority of Corporate Executives	
1	Leading Subordinates	2	
2	Integrity	5	**
3	Acting With Flexibility	1	
4	Setting a Developmental Climate	4	
5	Resourcefulness	3	*
5	Team Orientation	8	
7	Decisiveness	9	*
8	Do Whatever It Takes	7	
9	Compassion and Sensitivity	15	**
10	Balance Between Personal Life and Work	13	**
11	Building and Mending Relationships	6	**
12	Hiring a Talented Staff	11	
13	Self-awareness	10	
14	Confronting Problem Subordinates	14	
15	Putting People at Ease	16	
16	Quick Study	12	**

* Mean score differences were statistically significant at $p < 0.05$

** Mean score differences were statistically significant at $p < 0.01$

Figure 3-40:   Comparison by Military and Corporate Executives
of the Perceived Importance of Executive Inventory
Competency Factors (125:50)

Priority of Military Executives	Derailment Factor	Priority of Corporate Executives	
1	Strategic Differences With Management	1	*
2	Difficulty in Molding a Staff	5	
3	Overdependence	2	**
4	Lack of Follow-through	4	*
5	Difficulty in Making Strategic Transitions	3	**
6	Problems With Interpersonal Relationships	6	**

* Mean score differences were statistically significant at $p < 0.05$

** Mean score differences were statistically significant at $p < 0.01$

Figure 3-41: Comparison by Military and Corporate Executives
of the Perceived Importance of Potential Derailment
Factors (125:53)

Priority of Military Executives	Difficulty in Doing This Type of Job	Priority of Corporate Executives	
1	Ambiguous Jobs	4	**
2	Challenging Jobs	1	**
3	Time-limited Jobs	3	*
4	Projects/Task Forces	2	
5	Jobs Involving Hardship	5	*

*   Mean score differences were statistically significant at $p < 0.05$

** Mean score differences were statistically significant at $p < 0.01$

Figure 3-42: Comparison of Military and Corporate Executives of the Perceived Ability to Perform Effectively in Specified Job Assignments (125:55)

PROBLEM-SOLVING STYLE	MILITARY (%)	CORPORATE (%)
1. Solutions based on politics	0.0	0.0
2. Solutions based on rationality and persuasion	75.0	66.1
3. Solutions based on technical corrections	25.0	33.9

MANAGEMENT STYLE	MILITARY (%)	CORPORATE (%)
1. Emphasis on setting priorities and checkpoints	50.0	39.0
2. Involved in several key projects/problems	46.9	59.3
3. Intimately involved in details of projects/problems	3.1	1.7

Figure 3-43: Comparison of Military and Corporate Executive Styles of Problem-Solving and Management (125:56)

Mintzberg's study (previously referenced and described in detail at Appendix C) also provides some insight, albeit indirect, into this question.(135)   He found some evidence of differences in the factors affecting the effectiveness of executives in private and public (or quasi-public) organizations. In particular, he found that public-sector executives invested more time in formal activities (e.g., scheduled meetings) and in meeting with outside groups. Mintzberg attributed this to the public-sector environment being characterized by more complex coalitions of external forces. He also asserts that decisions taken in public-sector organizations are more politically sensitive and need to made in consideration of these external interests, involving more interaction with them (reference Appendix C-5, proposition 4). Mintzberg's are applicable to the extent that the Air Force is characteristic of the population of public-sector organizations sampled in Mintzberg's study.

(RQ 1.5)   What is the difference between the capabilities and qualifications required for effective performance at the executive level in air force organizations and the capabilities and qualifications required for effective performance at subordinate levels?

(Ho 1.3):   There is no significant difference between the capabilities and qualifications required for effective performance at the executive level and at subordinate levels in Air Force organizations.

This research question and its associated (null) hypothesis are particularly significant for the professional development of effective Air Force executives. If the null hypothesis is valid, it implies that the qualifications and characteristics which have made an officer effective and successful at lower levels of responsibility and authority are essentially the same qualifications and characteristics required for effective performance in executive-level assignments. If this indeed is the case, then professional development efforts should be focused on further developing and reinforcing the same effectiveness factors in which the officer has already demonstrated some competence. Alternatively, if the null hypothesis is rejected as not valid, it must be concluded that significant differences (probably) exist between those characteristics and qualifications required for executive effectiveness and those required for effective performance at lower levels of command, leadership and management. If this null hypothesis is not valid, it implies that professional development programs for executives need to focus on somewhat different skills, traits and

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qualifications (than those associated with performance effectiveness at lower levels).

Rejecting the null hypothesis suggests another important conclusion. It implies that effective performance at lower levels of responsibility and authority is not necessarily a totally valid and reliable predictor of executive effectiveness. In fact, it can be argued that certain factors which contribute to effective performance at (e.g.) the first-line supervisory level might actually be somewhat counterproductive at the executive level. Of course, this conclusion should not be interpreted to suggest that performance at lower levels is not necessarily a reasonably good predictor of executive-level effectiveness. Indeed, many effectiveness factors are no doubt common to all levels of management. However, concluding that significant differences exist, i.e., by rejecting this null hypothesis, implies that there exist certain (possibly critical) effectiveness factors associated with the executive level that are not required or are much less essential at subordinate levels.

The literature review conducted for this study clearly established the distinction between levels of in complex organizations such as the Air Force. A number of alternative taxonomies are commonly used in the general literature to describe these levels. Perhaps the one most commonly used in the military includes the strategic level, operational level and tactical level. This scheme is essentially based on the scope and significance of the objectives and operations involved. Another scheme commonly used has a more organizational orientation and includes the institutional level, departmental

level, and technical level. An alternative frequently used employs the labels executive level, managerial level, and supervisory level. Perhaps the most basic system encountered associates the levels with managerial levels and simply refers to them as top management, middle management and supervisory or first-line management.

The Air Force's new (January 1989) regulation on officer professional development (AFR 36-23) also recognizes these three levels of organization and management, but does not offer an explicit set of associated labels that is used consistently throughout the publication. In addition, much of the discussion makes an implicit association with various levels in the officer rank structure, i.e., company grade, field grade, senior grade and flag/general officer. The Air Force's professional military education system is structured accordingly, with company grade officers attending Squadron Officer School, majors attending intermediate service school (the Air Command and Staff College in the Air Force) and lieutenant colonels, colonel-selects and junior colonels attending senior service school (e.g., the Air Force's Air War College). Relatedly, AFR 36-23 identifies general professional development guidelines for each officer utilization field which are generally divided into three phases of development: initial, intermediate and advanced. These development phases are related to years of service, grade, assignments and education and training. It is interesting and significant to note that these professional development guidelines apply to officers below the grade of colonel. The regulation generally associates the terms "executive" and "executive level" with officers in the rank of colonel (and above), though the discussion associated with some utilization specialties

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also includes officers in the rank of lieutenant colonel at the executive level. Figure 3-44 presents a comparison of these alternative organization/management/leadership levels with the Air Force grade structure.

The Air Force's philosophy on officer professional development is described in AFR 36-23, Chapter 1. It rather clearly suggests, in general terms, that effective performance in executive-level assignments depends on both depth and breadth of experience and a well-balanced combination of functional specialty expertise, competency in the military arts and sciences, and leadership and management skills. Restated, the executive-level officer is expected to be much broader and more of a generalist than officers serving at subordinate levels. For example, senior officers are expected to have a solid understanding of national security policy issues and service, joint and combined force structure and employment strategies across the spectrum of conflict, i.e., the subjects included in the curriculum of the respective senior service schools. This competency is, by implication, an essential executive performance factor, but not required (although certainly desirable) for effective performance at lower levels of responsibility and authority.

This line of argument implies at least one important difference in the factors affecting executive effectiveness and effectiveness at subordinate levels. Similarly, the stated philosophy also suggests that advanced academic education in more general areas (i.e., less technical or narrowly-focused fields of study), e.g., management, public administration, national security affairs and the like are more appropriate for field grade officers serving at higher levels. This official professional development philosophy

GENERAL/FLAG OFFICER

STRATEGIC/INSTITUTIONAL/TOP/EXECUTIVE

FIELD GRADE

COLONEL

....

OPERATIONAL/MANAGERIAL/MIDDLE   LIEUTENANT COLONEL

MAJOR

COMPANY GRADE

CAPTAIN

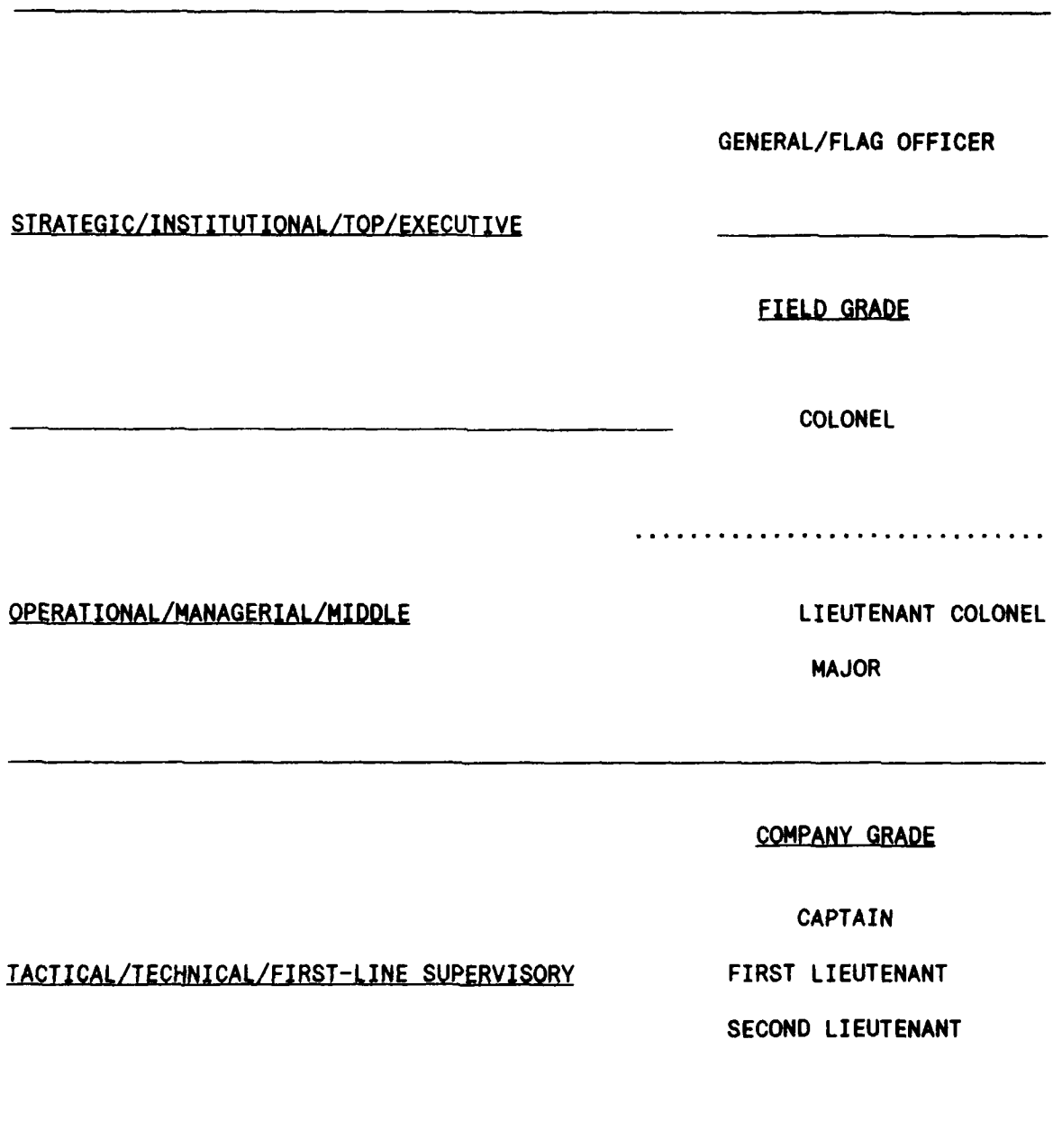TACTICAL/TECHNICAL/FIRST-LINE SUPERVISORY   FIRST LIEUTENANT

SECOND LIEUTENANT

Figure 3-44: Levels of Command, Leadership, Management and Organization

also suggests that executive effectiveness depends on a broad, varied range of assignments, including both line and staff experience; experience at base, major command and HQ USAF levels; experience in areas outside of the officer's primary career specialty; command experience, experience in joint/combined organizations, and experience in overseas theaters. This breadth of experience is not expected of officers serving at subordinate levels. On the contrary, company grade officers are (by comparison) expected to concentrate on developing depth of experience and expertise in their functional specialty, primarily at the base level, and are not encouraged to seek staff experience at higher organizational levels.

Part II of AFR 36-23 provides more specific professional development guidelines for each of the 39 functional specialties included in the publication. Each of these specialty descriptions makes more-or-less explicit distinctions in the functional factors affecting executive effectiveness and those affecting effectiveness at lower levels. However, neither the general discussion in Part I nor the more functionally-specific discussion in Part II explicitly identify non-functional factors which differentiate performance effectiveness between the executive level and lower levels of authority and responsibility.

It is both interesting and significant to note that despite recognizing essential differences between executive- and subordinate-level effectiveness factors, Air Force philosophy and policy very strongly assert (without supporting evidence) that an officer's performance in his or her current assignment (and level of authority and responsibility) is the most important

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<u>indicator</u> (though not the only indicator) of potential for effective performance at more senior levels.

The general literature concerned with this issue identifies a number of factors affecting executive effectiveness which are distinct from those factors primarily affecting effectiveness at subordinate levels. Levinson, for example, believes that the ability to conceptualize in dealing with the much greater complexity and variety associated with the executive-level (in large organizations) is perhaps the most distinguishing factor.(104)   He associates with this conceptualization skill the abilities to think strategically, to take a longer-term perspective, and to imbue throughout the organization a sense of "transcendent purpose". Finally, Levinson argues that senior executives must have an especially strong image of themselves as leaders and teachers.

Daft and Steers assert that the type of department for which a manager is responsible and the manager's level in the organizational hierarchy are the two most important factors influencing the type of skills required for effectiveness. They conclude that the skills required of managers change as they move up the hierarchy and acquire greater responsibility and authority.(044:17)   They base this conclusion primarily on research accomplished by Gomez-Mejia, et al. The data included in Figure 3-45 compare various levels of management on the basis of the relative importance of key managerial activities and, by inference, the associated skills required to effectively perform the activity.(044)

Daft and Steers have also contrasted leadership abilities and decision-making skills required for different organizational levels. Figure 3-46 illustrates the relationship between leadership skills and organizational or managerial level.(044:405) Figure 3-47 (based on the classical construct first proposed by Simon) illustrates the relationship between organizational or managerial level and decision types.(44:440)

Kast and Rosenzweig, integrating the work of Parsons, Petit, Thompson and others, have developed a comprehensive systems-based model which views a complex organization as comprising operating, coordinative and strategic subsystems or levels existing in a changing, uncontrollable environment.(091) In the context of this model, the executive operates in the strategic subsystem and is primarily responsible for sensing or predicting changes in the environment and adapting the organization to those environmental changes. Because the strategic subsystem is, according to the model, the most uncertain, ambiguous, risky, complex and rapidly changing level of the total organizational system, the executive must be capable of effectively dealing with these system characteristics and making decisions under these constraints.

Koontz, et al., based on the earlier work of Katz, suggest that to be effective, managers need various abilities and that the relative importance of these skills varies according to the level of the organization.(096:402) Specifically, these writers suggest the following general skills are relevant:

| | MANAGEMENT LEVEL | | |
MANAGERIAL ACTIVITIES	First-Line	Middle	Executive
Long-range planning	25	45	84
Products and services	33	50	58
Controlling	38	50	61
Monitoring business indicators	30	49	74
Supervising	65	50	33
Coordinating	31	52	70
Customer relations/marketing	27	49	69
External contact	38	45	57
Consulting	30	52	70

Figure 3-45:   Importance of Activities and Associated Skills by
Management Level (044)

LEADERSHIP ABILITY AND SKILL

LEVEL	Cognitive	Affective
Top	Analyze events and trends, define strategy and structure, plan, deal with environment. Adopt long time horizon.	Define human relations climate and practices, create positive internal culture, values, and symbols.
Middle	Define operative goals, rules, department structure, coordinate with other department. Adopt medium time horizon.	Establish relations with peers, subordinates, and other departments. Motivate employees, enhance teamwork, resolve conflicts.
Lower	Provide technical knowledge of tasks, apply rules and procedures, achieve efficient production, targets and efficiencies. Adopt short time horizon.	Motivate subordinates, administer rewards and sanctions, be sensitive to needs of immediate group.

Figure 3-46: Leadership Requirements at Each Level in the
Organizational Hierarchy (044)

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MANAGEMENT LEVEL

Lower   Middle   Top

DECISION

TYPE

Nonprogrammed Decisions:

Novel strategic problems,
ill-defined goals, ambiguous
information and alternatives,
uncertainty

Programmed Decisions:

Repetitive operational
problems, well-defined goals,
clear information and
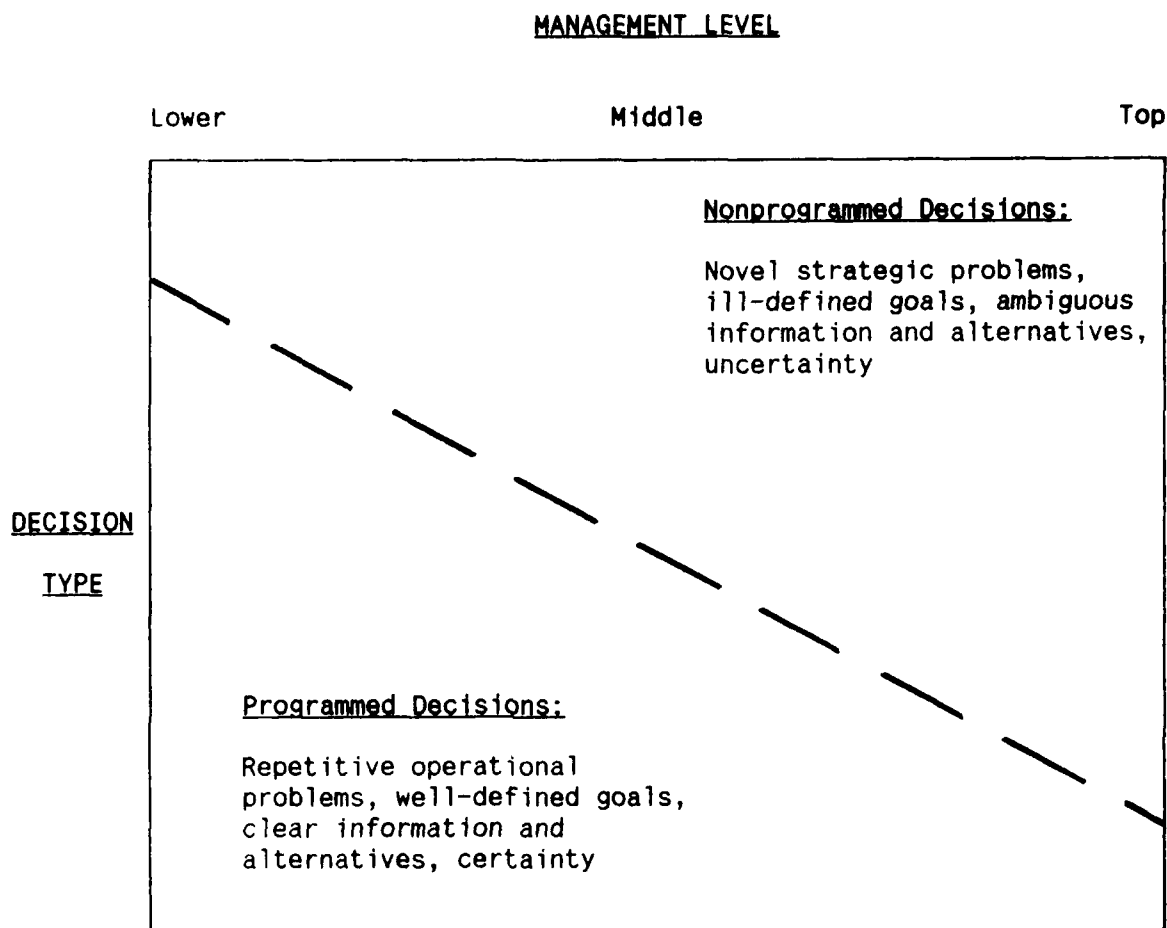alternatives, certainty

Figure 3-47: Relationships of Decision Type to Management
Level in Organizations (044)

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-   _Technical skill_: expertise and proficiency in specific activities, procedures, methods and procedures;

-   _Human relations skill_: the ability to work with people, i.e., to direct and motivate their efforts;

-   _Conceptual skills_: the ability to see the "big picture" and understand complex phenomena; and

-   _Design skill_: the ability to solve problems in a way that will benefit the organization.

Figure 3-48 illustrates the relative importance of these skills to the respective levels of organization/management.

Research by Jacobs and Jaques suggests that as an officer moves up in the organization, increasingly complex skills are required.(088) They suggest the following competencies become correspondingly important:

-   Indirect leadership methods, rather than face-to-face leadership skills;

-   The ability to effectively deal with increasing levels of uncertainty and complexity;

-   The ability to coordinate and integrate diverse functions;

-   The ability to manage more lateral and external relationships; and

-   The ability focus on the future.

Bentz has also conducted research into the issue of executive effectiveness and concludes that a critical determinant of executive success is the ability to deal with what he labels the "scope and scale" inherent in a large organization.(020) According to Bentz, "scope" is a horizontal

LEVEL:

TOP

Conceptual, design, and problem solving

MIDDLE
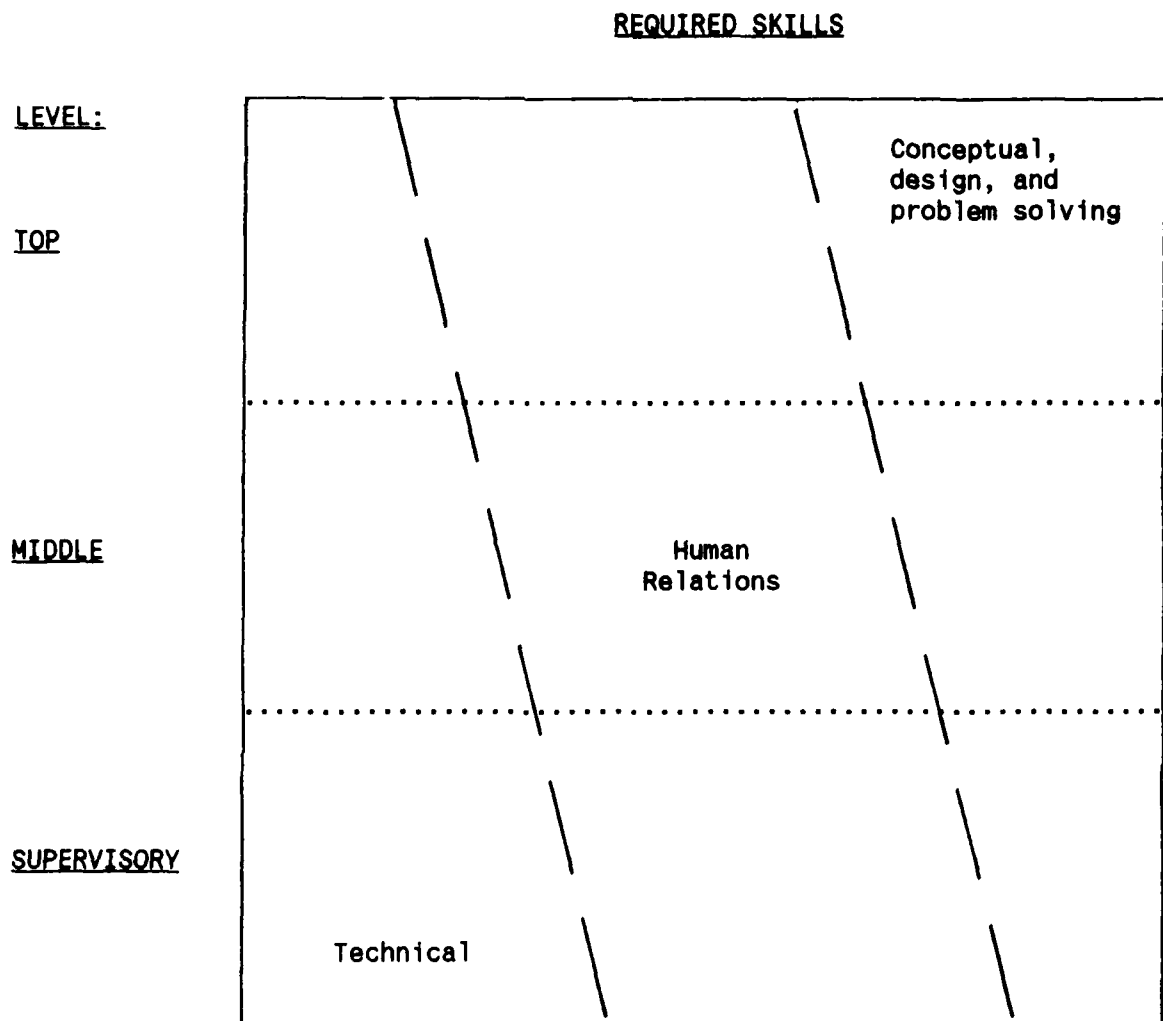
Human Relations

SUPERVISORY

Technical

Figure 3-36:   Managerial Levels and Required Skills

dimension which is a measure of variety, i.e., the number of different

functions, products, services, and decisions which the executive must manage.

"Scale" on the other hand refers to the degree of complexity, diversity and

ambiguity within and across the various functions, activities and decisions

for which the executive is responsible. Bentz suggests that while these

scope and scale dimensions can be defined separately, it is more logical to

consider them as a single construct.

Others have referred to this scope/scale construct as simply complexity,

where complexity is a function of variety, interaction and instability.

Bentz concludes:

> Generally, job requirements become more complex as one
> moves up the hierarchy within a layered organization.
> The range, depth, and breadth of these requirements
> increase dramatically as one enters top-level positions
> ... Just as job requirements become more difficult as
> one moves up the organizational hierarchy, so do the
> skills executives need increase in complexity. One can
> assume that when job requirements increase tremendously
> at one point in the hierarchy, a unique combination of
> personal (psychological) characteristics is needed to cope
> with those requirements.(020:2)

Bentz' research involved extensive interviews with high-performing

executive level administrators. As a result of factor analysis of data

collected on a 51-question instrument designed to assess mental abilities,

personal characteristics, administrative skills and interpersonal relations,

he concluded that the factors shown in the influence diagram of Figure 3-49

accounted for most of the variance in performance effectiveness at the

executive level.(020:21) Bentz further concludes that the factor he labels

as "Integration of Diversity" is a good approximation of the scope/scale

PHYSICAL, EMOTIONAL AND   (+)
INTELLECTUAL STRENGTH THAT
SUPPORTS ADMINISTRATIVE ACTION

ASSURED INDEPENDENCE AND   (+)
INGENUITY OF INTELLECTUAL
AND ADMINISTRATIVE FUNCTIONING

EFFECTIVE (PEOPLE) LEADERSHIP (+)

SENSITIVITY AND STRENGTH IN (+)
SETTING STANDARDS AND
APPRAISING PERFORMANCE

EXECUTIVE
EFFECTIVENESS

EFFECTIVENESS AS A PUBLIC (+)
REPRESENTATIVE OF THE
ORGANIZATION

INTEGRATION OF DIVERSITY (+)

INFORMED, COMPETITIVE DRIVE (+)
TO IMPROVE AND DEVELOP THE
ORGANIZATION
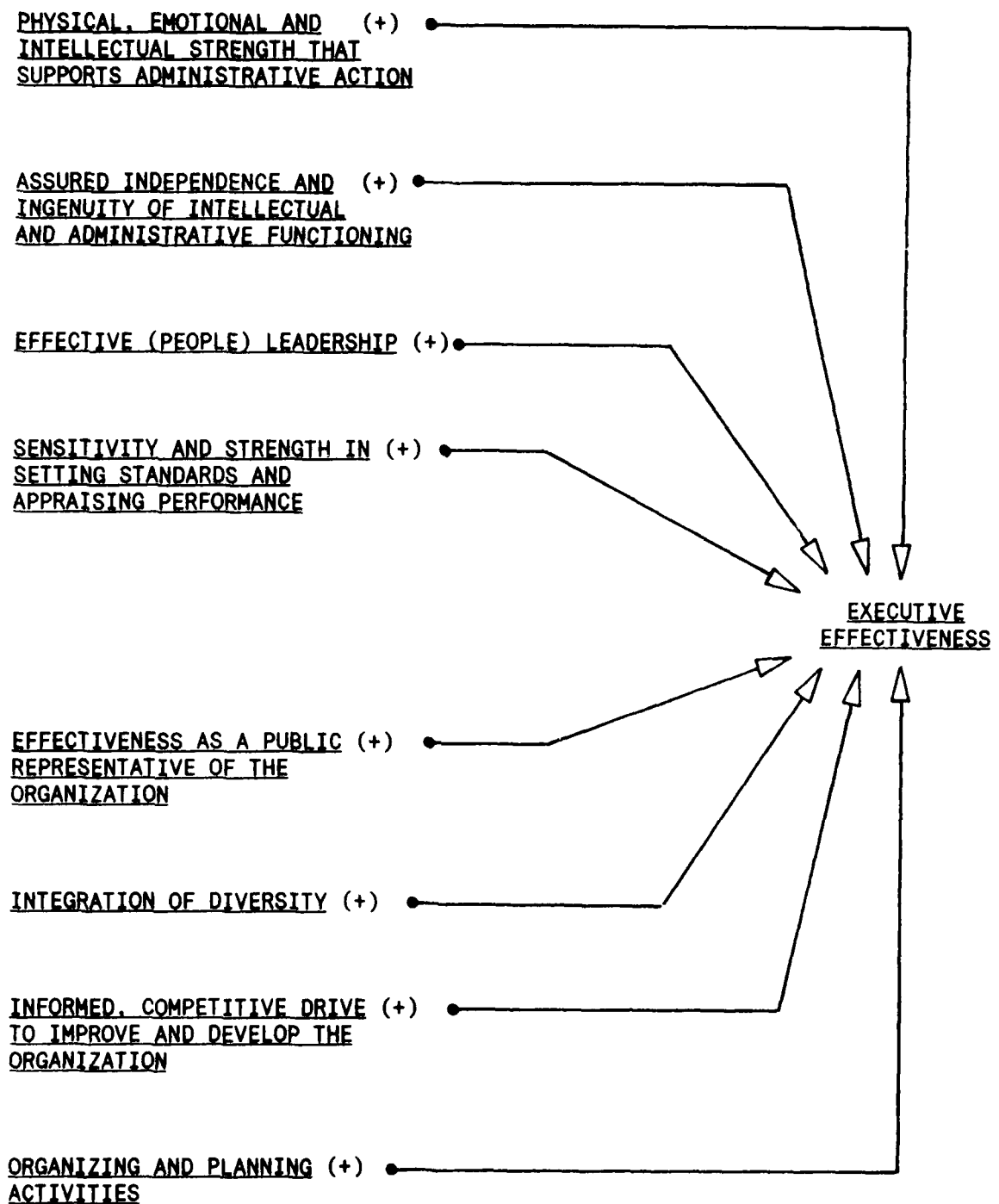
ORGANIZING AND PLANNING (+)
ACTIVITIES

Figure 3-49: Executive Effectiveness Factors (020)

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construct and asserts that competency on this factor is crucial to effectiveness at the executive level.

Mintzberg's investigation into the activities of chief executive officers (previously referenced) specifically addressed this research question, i.e., how do managerial jobs at the top of the organizational hierarchy differ from those at subordinate levels?(135:110) Mintzberg reported finding no empirical support for the contention that managerial jobs are fundamentally different at various levels in the organization. He concluded that the (ten) managerial roles he defined are common throughout the organization, although the emphasis and specific orientation of the respective roles vary with organizational level and function. Appendix C-5 presents Mintzberg's propositions concerning variations in managers' work, including those relating directly to variations associated with organizational level (reference propositions 2 and 6-10).

McCall and Segrist conducted survey research designed to empirically validate, refine and extend Mintzberg's work.(123) This survey was done on a large (n=2,609) sample of managers taken from different levels and functional areas within a manufacturing organization. These researchers factor-analyzed their data and concluded that empirically, only six of Mintzberg's 10 managerial roles were distinguishable: leader, liaison, monitor, spokesman, entrepreneur and resource allocator; the figurehead, disseminator, disturbance handler and negotiator roles were not distinguishable. This finding tends to weaken Mintzberg's generalization

that all management jobs include, with varying degrees of emphasis, his ten postulated roles.

However, McCall and Segrist did find a consistent valuing of the relative importance of these six factors across various organizational levels (and functions, e.g., manufacturing, sales, finance, etc.), supporting Mintzberg's generalized conclusions. The _entrepreneur_ role -- creating and managing change -- was consistently ranked as the most important role. The leadership role was ranked as the next most important and the liaison role consistently ranked as least important.(123:9) This finding is somewhat surprising, considering the emphasis given to the leadership role in the general literature.

McCall and Segrist found large functional differences in rated importance of the _leader_ role at the lowest and highest levels of management, with manufacturing managers rating it as most important, and no functional differences at the middle management levels. For the _liaison_ role, the researchers found it was rated as more important at higher organizational levels. They also found that the liaison role was rated as more important by sales managers (at all levels) than it was by either manufacturing or finance managers.(123:9)

Considering the _monitor_ role, McCall and Segrist found that it was rated as much more important at higher levels of management than at lower levels. Finance managers ranked the monitor role as more important than did either the sales or manufacturing managers. Similarly, the researchers also found

that for the _spokesman_ role, managers at higher levels ranked it as more important than did managers at lower levels; this was true for all organizational levels.(123:9)

Finally, for both the _entrepreneur_ and _resource allocator_ roles, managers at higher levels rated these roles as more important than did managers at lower levels. Manufacturing managers rated these roles as more important than did sales managers, and sales managers rated these roles as more important than did finance managers.(123:10)

In general, the research reported by McCall and Segrist found that the perceived importance of these roles was positively correlated to increased management levels, a finding that provided only partial support for Mintzberg's model. These researchers found one additional interesting result. They correlated the importance placed on the respective leadership roles with a rough index of promotion rate (computed by dividing the manager's current level by years of service). Five of the six roles were weakly and positively correlated to promotion rate. However, for the _leadership_ role, the researchers found an _inverse_ relationship (albeit a relatively weak one), suggesting the counterintuitive notion that the stronger the manager's perception of the importance of the leadership role, the slower will be the rate of promotion.(123:12-13)

(RQ 1.6) What is the difference between executive capabilities and qualifications required in air force organizations now and those capabilities and qualifications that are likely to be required in the future?

(Ho 1.4): There is no significant difference between the executive capabilities and qualifications required now in Air Force organizations and those that are likely to be required in the future.

This research question has obvious significance for the design of an executive self-assessment and development program that will be relevant to the Air Force's needs in the future. The literature review conducted to answer this research question and to accept or reject the associated null hypothesis identified a number of articles suggesting the following premises:

(1)   The environment in which all organizations (including the military) are operating is changing significantly (some argue at an accelerating rate);

(2)   To remain viable in a changing environment, organizations must adapt to that environment; and

(3)   These changed environments and adapted organizations will require somewhat different executive qualifications, traits and characteristics than are currently required.

By comparison, no articles or other references were identified that predicted or even implied that there will be little or no change in those factors affecting executive effectiveness in the future.

Peter Drucker foresees significant changes in organizations, their environments, and the senior executive skills required to effectively lead and manage these organizations during the next two decades.(O55)   He attributes these changes to three primary influences: population/workforce demographics, economic factors, and most significantly, to changing technology, particularly data/information-processing technology.   He concludes that organizations will become "information based," and become much "flatter" in their structure, having fewer than half the levels of management and no more than a third of the managers than contemporary organizations typically exhibit.   Drucker believes organizations of the future will have much smaller central staffs and employ many more specialists than organizations currently do.   He also sees a movement away from functionally-based, bureaucratic organizations toward "multifunctional synchronous teams." Since, according to Drucker, spans of control will be much larger than they are today, establishing and communicating a clear vision of where the organization is going and the objectives it is trying to achieve will become even more important than it is today.   Relatedly, he believes the senior executive must focus on simplifying policies and procedures so they are more readily understood and quickly executed.   Executives will be challenged to devise compatible systems for rewarding, recognizing and retaining specialists, since there will be fewer opportunities for them to move into management positions and increasing pressures to move between organizations. Relatedly, in such organizations, it will be increasingly difficult to develop (from within) the expertise and experience required by top leadership/management.   Implicit in Drucker's assessment is the need for executives to be increasingly competent and innovative in the management of

information and, especially, in the use of computers. Also implicit in Drucker's forecast is the need for executives to be increasingly effective in managing internal change to deal with external change.

McCormick and Powell interviewed a number of prominent chief executive officers who suggest that the 1990s will be characterized (in the private sector) by increasing competitive pressures that will result in various cost-cutting initiatives and the downsizing and restructuring of organizations.(128)   Much of this will result from increasing global competition and interdependency. To remain viable, companies will have to adopt less rigid, more flexible organization structures that facilitate enhanced internal communication and coordination. They will have to place increased emphasis on quality and customer service. Senior executives will have to demonstrate and emphasize increased creativity, imagination and innovation. They will also need to demonstrate increasing concern for the morale and welfare of their personnel.

Kupfer, discussing the probable environment confronting managers in the 1990s, identifies a number of key trends that will likely affect executive effectiveness in the future.(100)   He foresees a continuing trend to "globalization" in which businesses and their senior executives will be increasingly forced to adopt a global or international perspective, developing a much better understanding of the social, economic, political and cultural influences operating throughout the world. Kupfer attributes this to the increasing interdependencies and interconnectedness characterizing the various national and regional economies and organizations within those

regions/nations. Much of this interconnectedness is due to, and will continue to be facilitated by, advances in communications and information processing technologies. He also forecasts increasing involvement of foreign influences in domestic economics and politics.

Another trend Kupfer forecasts is a relative labor shortage, particularly at the entry-level. Most new employees are likely to be women and minorities. The relative labor shortage combined with changing work force demographics are likely to result in increased labor activism and independence, challenges which the senior executive must anticipate and be prepared to deal with. There seems little question that these forecasted trends, if accurate, will have significant direct and indirect influences on the skills that will be required by senior military executives to effectively deal with these challenges.

Main also forecasts significant change in the nature of organizations, their environments and the challenges confronting executives during the next decade.(116.1) The ability to recognize relevant and significant change as it occurs will be one of critical skills demanded of senior executives in the future. Speed in decision making and adaptation will be at a premium, especially the ability to operate within the competitions decision cycle. Main believes, as does Drucker, that the technology of information will redefine organizational structures, reducing the need "vertical integration." According to Main, senior executives will be as dependent on, and have to be as comfortable in using, computers, as they now are in using the telephone. Also, like Drucker, Main reports that a number of other experts he surveyed

also believe there will be a significant reduction in the size of central staffs and, concurrently, spans of control will become much larger, giving way to "spans of communication."

Main, like Kupfer and others, also sees "globalization" as one of the major factors contributing to the changing nature of organizations and the perspective senior executives will have to adopt. Main (like Kupfer) believes that the growth of the work force (particularly at the entry level) will not keep pace with demand for labor. The result will be increased competition for available labor, an increase in the percentage of women and minorities in the work force, and increased turnover and mobility of personnel. Main concludes his assessment by reporting the conclusion of a study accomplished by the Wharton business school (University of Pennsylvania): the primary challenge will be to train managers who can deal effectively with constant, rapid change.

Work, et al. also believe the "21st century executive" will be confronted by an environment characterized by intense competition, increasingly global markets and rapid technological change.(197) After interviewing numerous senior executives, management consultants and academics, these writers conclude that future senior executives must effectively fill the following roles:

- Global Strategist
- Master of technology (especially information technology)
- Politician
- Leader/motivator

This assessment also emphasizes that future executives must be skilled at dealing with extreme complexity and rapid change.

Levinson also concludes that in the future, chief executives must develop different traits and characteristics if their organizations are to be successful in an increasingly complex and rapidly changing environment.(105) Specifically, he argues that in the future, executive effectiveness will increasingly depend on the following qualities and characteristics:

- Concern and compassion for subordinates

- Openness

- Honesty

- Understanding of subordinates

- Ability to deal with personal and organizational stress and tension

- Creativeness, imagination and innovation

- Ability to manage conflict

- Ability to manage change

- Understanding of group dynamics/behavior

- Ability to conceptualize in dealing with complexity

- Self-image as a leader

- Ability to communicate

- Ability to create a vision of the future

Figure 3-50 presents an influence diagram of Levinson's model.

The literature review conducted for this study identified several references that specifically addressed the general subject of changing

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CONCERN/COMPASSION (+)
FOR SUBORDINATES

OPENNESS (+)

HONESTY (+)

UNDERSTANDING OF (+)
SUBORDINATES

ABILITY TO DEAL WITH PERSONAL (+)
AND ORGANIZATIONAL PRESSURE

CREATIVITY, IMAGINATION AND (+)
INNOVATIVENESS

EXECUTIVE
EFFECTIVENESS

ABILITY TO MANAGE CONFLICT (+)

UNDERSTANDING OF GROUP (+)
DYNAMICS AND BEHAVIOR

ABILITY TO DEAL WITH (+)
COMPLEXITY THROUGH
CONCEPTUALIZATION

SELF-IMAGE AS A LEADER (+)

ABILITY TO COMMUNICATE (+)
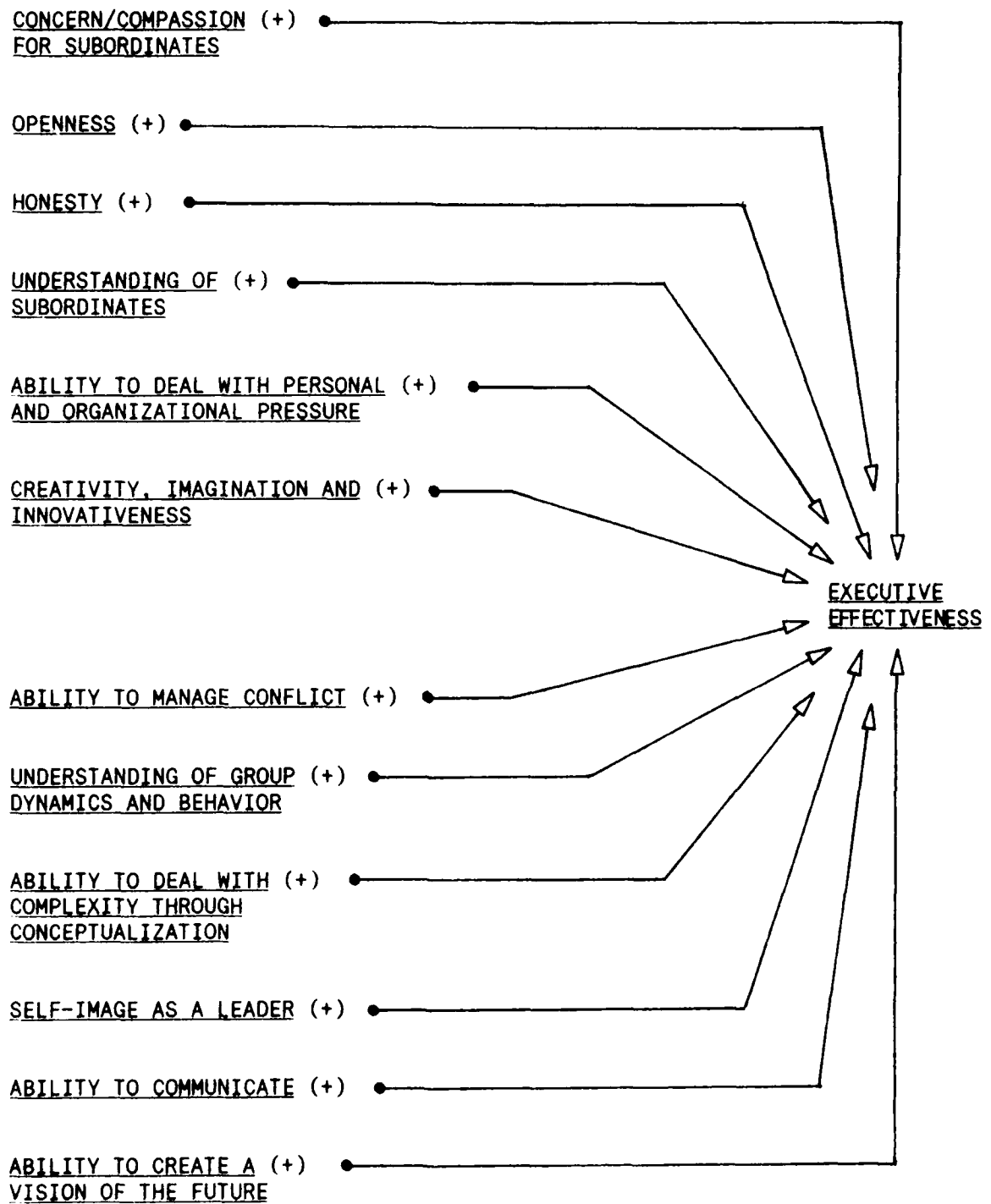
ABILITY TO CREATE A (+)
VISION OF THE FUTURE

Figure 3-50: Levinson's Model of Executive Effectiveness
Factors Required of Future Managers (105)

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executive effectiveness factors for the Air Force or the military. Gal assessed future trends in the military environment and concluded that in the future, the following competencies would be particularly important for military officers:

- The ability to motivate subordinates in complex and uncertain situations;

- Political sensitivity;

- Understanding of cultural differences; and

- The ability to develop subordinates into committed professionals.(074)

Jacobs suggests that in the future, officers will need the following competencies:

- *The need for more understanding of systems dynamics;*

- *More initiative and foresight;*

- *Higher technical competence;*

- *Greater flexibility; and*

- *Propensity for risk taking.*(087)

In separate studies, Turcotte and Haythorn (et al.) conclude that in the future, executive-level military leaders will require new skills, e.g.:

- The ability to integrate different viewpoints;

- The ability to make resource allocation decisions; and

- Long-range decision-making skills.(083;183)

The subject of professional military education has recently received intense scrutiny and criticism, both by independent analysts and by the Congress. The focus, curriculum, organization, methods of delivery and assessment of both the intermediate and senior joint and respective service schools have all been examined. The House Armed Services Committee recently chartered a special panel, chaired by Representative Ike Skelton, to "...assess the ability of the Department of Defense professional military education system to develop officers competent in both strategy and joint (multi-service) matters.(170) The executive summary of the panel's report, issued in November 1988, contains nine specific recommendations, several of which are relevant to the discussion here. The panel's first recommendation offered the following conceptual framework for focusing professional military education:

PME Level	Primary Focus
Flag/General Officer	National Security Strategy
Senior	National Military
Intermediate	Combined Arms Operations and Joint Operational Art
Primary	Branch or Warfare Specialty

The panel also recommended reorganization of the school system to place more emphasis on joint defense/warfare organizations, concepts, issues, and operations. All officers would study: the capabilities and limitations, doctrine, organization, and command and control of forces of all services; joint planning processes and systems; and the role of service commands as part of a unified command. In addition, officers selected to serve as "joint specialists" would receive more in-depth exposure to these topics and would

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focus on the integrated employment of multi-service forces across the complete spectrum of conflict and in both developed and undeveloped theaters of operation. Specific emphasis would be given to developing within all officers, and especially those selected to serve as joint specialists, joint service attitudes and perspectives. In the context of this study, the panel's recommendations constitute a de facto statement of the (military) skills and knowledge senior officers will be expected to master to be effective in executive-level positions.

(RQ 1.7) How can those factors affecting executive effectiveness in air force organizations, and the relationships between those factors, be integrated into a comprehensive conceptual model?

This final section directly addresses the research objective on which this chapter focuses by summarizing, synthesizing and integrating the foregoing discussion into a comprehensive conceptual model of executive effectiveness in Air Force organizations. More specifically, it identifies those factors that affect organizational effectiveness now, as well as those that are likely to become increasingly important in the future. The proposed model also illustrates how these factors are interrelated.

At the lowest level of resolution, illustrated in Figure 3-51, organizational effectiveness is partitioned as a function of two sets of factors: executive effectiveness and all other significant (relevant) factors. The next higher level of resolution examines each of these component sets in more detail. Figure 3-52 illustrates that the set of other relevant significant factors can be further partitioned into the sets comprising organizational factors and environmental factors. In this context, organizational factors are all those factors affecting unit effectiveness (other than those associated with executive effectiveness) that are internal to the organization of interest. By comparison, environmental factors are those variables affecting organizational effectiveness that are essentially external to the organization.
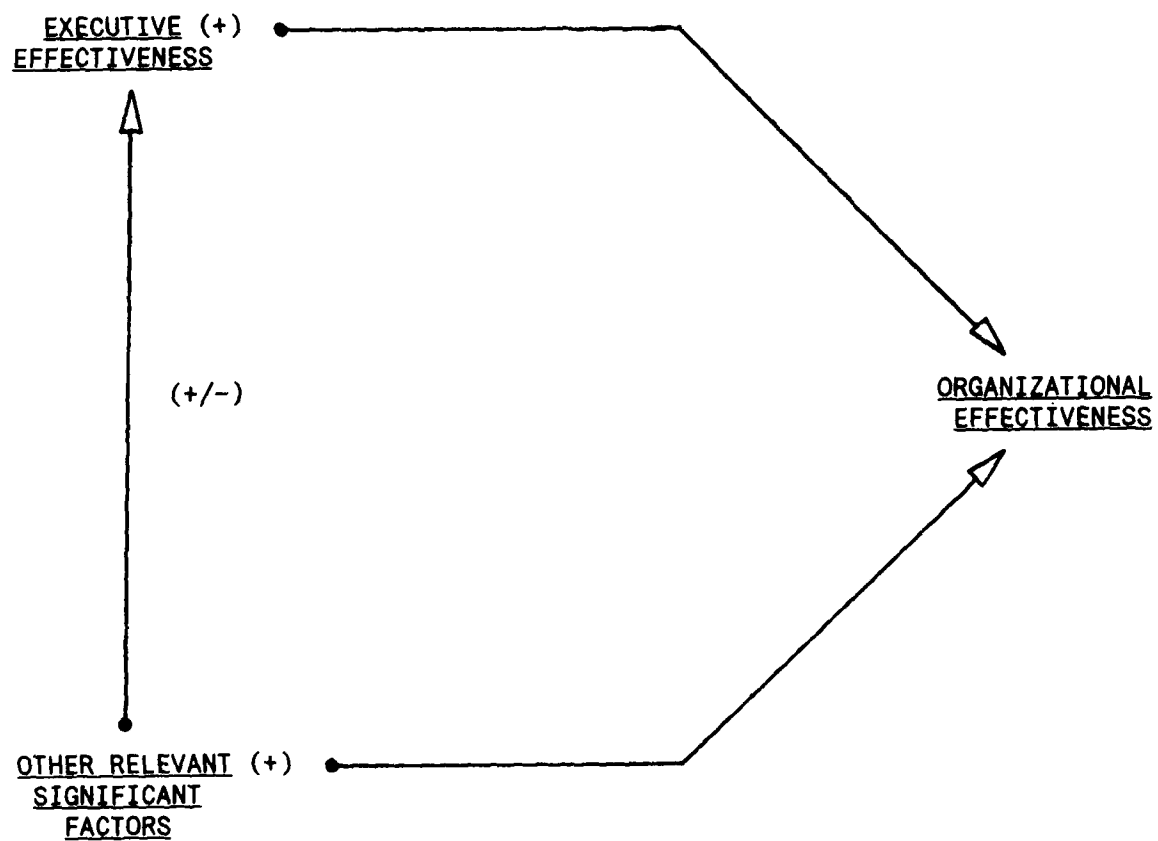
EXECUTIVE (+)
EFFECTIVENESS

ORGANIZATIONAL
EFFECTIVENESS

(+/-)

OTHER RELEVANT (+)
SIGNIFICANT
FACTORS

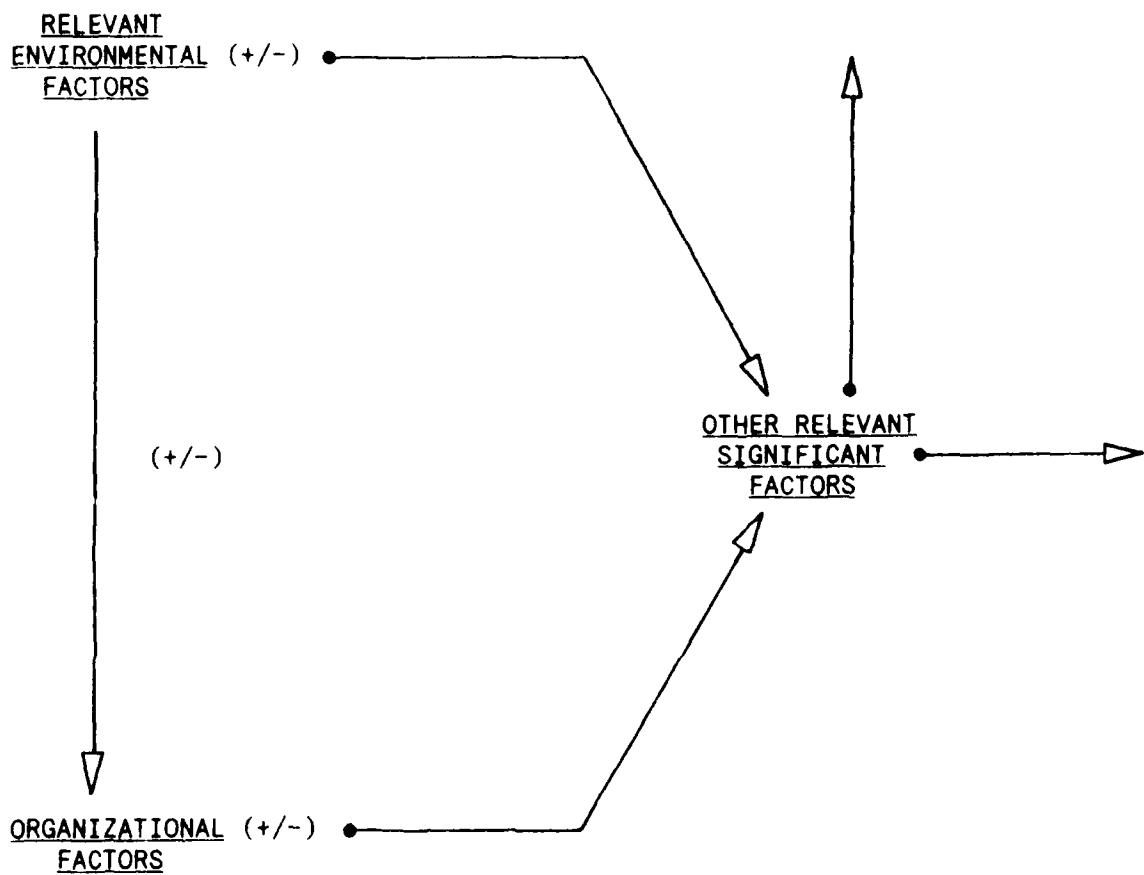Figure 3-51: General Model of Executive and Organizational Effectiveness

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Figure 3-52: Other Relevant Significant Factors

Figure 3-53 illustrates those primary variable sets affecting executive effectiveness. This model suggests that in the Air Force (and other military services), executive effectiveness comprises three component variable or effectiveness factor sets: professional military effectiveness, general leadership and management effectiveness, and functional-technical effectiveness. In the context of this discussion, professional military effectiveness refers to the individual's effectiveness in accomplishing those aspects of the military arts and sciences associated with the Air Force. General leadership/management effectiveness refers to the person's effectiveness in organizational leadership and management, i.e., those skills required for effective performance at the executive level in any organization comparable in size and complexity to the Air Force. Finally, functional-technical effectiveness refers to the officer's skills and competency in his particular funct'onal/technical specialty, e.g., operations, civil engineering, maintenance, etc. This functional-technical competency set generally remains applicable and significant through at least the major general (O-8) level of executive responsibility and authority. Above this level, this component set appears to become somewhat less significant.

The influence diagram in Figure 3-53 also illustrates that these component factor/effectiveness sets are interrelated. This interrelation is significant because it accommodates the notion that there is some inconsistency in the way various researchers and writers assign various component factors, e.g., leadership effectiveness. While some writers contend that leadership effectiveness should be a member of the professional military effectiveness set, others attribute it more properly to the general
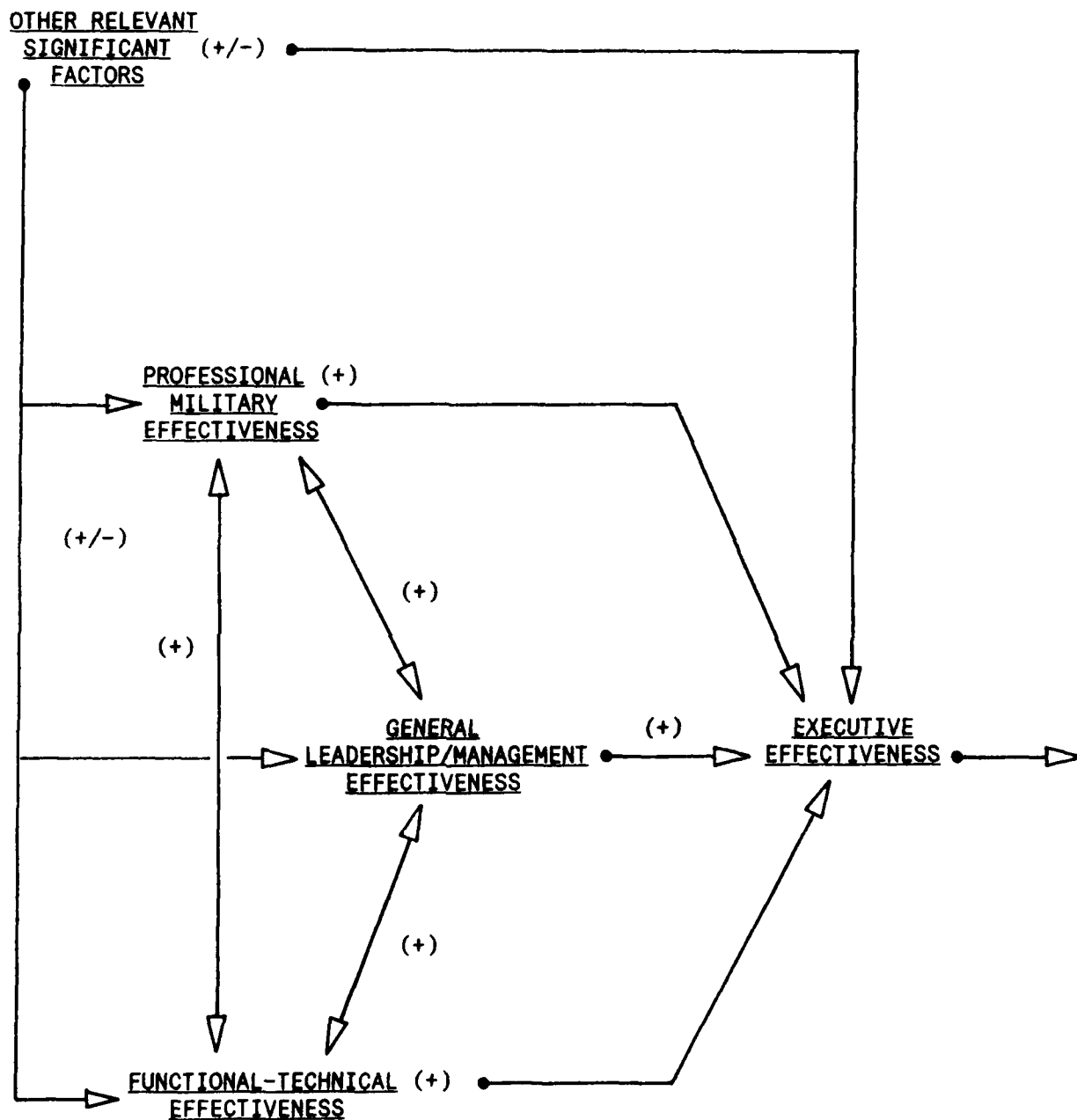
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Figure 3-53: Primary Executive Effectiveness Factors

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management effectiveness set. The interrelation between these primary sets shown in Figure 3-53 suggests that such taxonomical debates are largely inconsequential.

Figure 3-54 is a list of those factors (summarized/synthesized from the research previously described) affecting professional military effectiveness. Figure 3-55 presents factors affecting general management effectiveness, while Figure 3-56 lists those factors affecting functional-technical effectiveness.

Conceptually, it would be possible to expand the influence diagram model shown in Figure 3-53 to incorporate all of the component factors/variables identified in Figures 3-54 through 3-56 and to graphically illustrate the relationships between the more than 100 component variables included in this model of executive effectiveness in the Air Force. However, to do so would require the explicit or implicit consideration of the more than 5,000 possible bivariate relationships defined by these factors. While such an expansion of the model would seem desirable to fully describe the manner in which these component variables interact to influence executive effectiveness, the complexity involved practically precludes such a graphical approach.

However, a more pragmatic approach is available. By constructing a matrix with each of the (100+) constituent variables displayed on each axis, it is possible to more efficiently systematically deal with the total complexity of this model. The cells of this matrix would (conceptually)

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* __Exhibits and Promotes Professional Military Qualities and Values (e.g.):__

    * Competitiveness
    * Loyalty
    * Discipline
    * Dedication
    * Dependability
    * Consistency
    * Physical and moral courage
    * Integrity and honesty; trustworthiness
    * Concern for the welfare of subordinates
    * Fairness and objectivity in dealing with subordinates
    * Air Force standards, customs and courtesies
    * Acceptance of responsibility
    * Professional ethics
    * Appearance and bearing
    * Positive attitude
    * Self-confidence
    * Selflessness

* __Operational/Flight Rating__

* __Command Effectiveness__

    * Level of command experience
    * Variety of command experience

* __Aptitude for, Understanding of, and Effectiveness at, the Military Arts and Sciences Across the Entire Spectrum of Conflict, e.g.:__

    * Analysis and development of aerospace, joint and combined doctrine

    * Analysis and development of aerospace, joint and combined strategy

    * Analysis and development of aerospace, joint and combined tactics

    * Threat analysis

    * Military logistics

Figure 3-54: Factors Affecting Professional Military Effectiveness
              (Continued on next page)

*   Understanding of, and Ability to Apply, the Lessons of Military History

*   Effectiveness at Military Force Development and Application/Employment in Coordination with Other Instruments of National Power and Policy

*   Understanding of National Security Policy Analysis, Development and Implementation

*   Understanding of the Organization, Command and Control of Air Force, Joint and Combined Military Systems

Figure 3-54: Factors Affecting Professional Military Effectiveness

* <u>General Aptitude for Leadership and Management</u>

* <u>Intellectual Competencies, e.g.:</u>

    * Intelligence
    * Curiosity/inquisitiveness
    * Creativity

* <u>Physical Characteristics, e.g.:</u>

    * Health and physical fitness
    * Energy level
    * Gender/sex
    * Race
    * Physical appearance and stature

* <u>Basic Personality Factors, e.g.:</u>

    * Needs (e.g., for achievement, power, recognition, affiliation, competency, etc.)
    * Extrovertedness/Introvertedness
    * Positive self-image
    * Sense of humor
    * Understanding of self, i.e., personality strengths and weaknesses

* <u>Leadership Effectiveness:</u>

    * Self-perception as a leader
    * Sets challenging, but achievable goals for individuals and groups
    * Enforces standards
    * Motivates subordinates individually and in group activities
    * Works well with others
    * Sensitivity to the needs/values of superiors, peers and subordinates
    * Sensitivity to differences in social and cultural values
    * Fosters teamwork
    * Displays and promotes initiative
    * Has the respect and confidence of subordinates
    * Fair and consistent in evaluating subordinates
    * Effectiveness at conflict management and negotiation
    * Effectiveness at recognizing/rewarding and sanctioning/punishing subordinates
    * Understanding organizational culture and values
    * Effectiveness at creating the desired organizational climate

Figure 3-55:   Factors Affecting General Management Effectiveness
(Continued on next page)

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* __Understanding of the Economic, Financial, Political, Regulatory, Technological, Social-cultural and Competitive Environments Affecting the Organization and the Nature of National and International External Dependencies Affecting the Organization__

* __Success in Leading and Managing at Lower Levels__

* __Planning Effectiveness (e.g.):__

    * Ability to create a strategic vision for the organization that is compatible with the organization's changing environment
    * Effectiveness at setting organizational goals and objectives
    * Effectiveness at establishing appropriate priorities
    * Effectiveness at strategic planning
    * Effectiveness at policy analysis and formulation

* __Resource Management Effectiveness__

    * Effectiveness at determining and acquiring required (personnel, financial, material, equipment, communication, information, data processing, facilities, and other) resources
    * Effectiveness at allocating limited available resources to competing priorities
    * Effectiveness at managing one's own time
    * Effectiveness at consistently delivering high-quality results on time and within budget
    * Effectiveness at acquiring and using power
    * Tenacity and follow-through

* __Problem-solving, Judgment and Decision-making Effectiveness:__

    * Ability to think conceptually and strategically
    * Ability to synthesize, integrate and simplify
    * Ability to systematically, rigorously and logically analyze complex problems
    * Ability to effectively deal with complexity
    * Ability to effectively make decisions under conditions of uncertainty, ambiguity and risk
    * Ability to make timely and accurate decisions
    * Ability to recognize opportunities act decisively to take advantage of them
    * Ability to exhibit creativity, resourcefulness, imagination and innovation in solving routine and nonroutine problems
    * Ability to act decisively in familiar and unfamiliar situations
    * Ability to systematically assess organizational effectiveness and efficiency

Figure 3-55: Factors Affecting General Management Effectiveness
(Continued on next page)

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* <u>Organizational Effectiveness (e.g.):</u>

   * Ability to conceptualize of organizations as systems and understands
      organizational interdependencies
   * Understanding of organizational functions and processes
   * Ability to delegates effectively

* <u>Communication Effectiveness:</u>

   * Listening effectiveness
   * Speaking effectiveness
   * Writing effectiveness
   * Effectiveness at working with the media and public

* <u>Effectiveness at Evaluating and Developing Subordinates</u>

* <u>Ability to Manage Information Effectively</u>

   * Understanding of, and facility with, computer systems and products

* <u>Emotional Stability and Ability to Effectively manages stress</u>

* <u>Ability to Deal With and Effectively Manage (Significant and Rapid) Change</u>

* <u>Ability to Effectively Balance Personal Life and Work</u>

* <u>Ability to Make Strategic Transitions</u>

* <u>Ability to Think and Act Independently</u>

* <u>Satisfaction With Job and Career</u>

Figure 3-55: Factors Affecting General Management Effectiveness

*   **Basic Aptitude for the Vocation or Technical Specialty**

*   **Depth of Expertise in the Technical Specialty**

    *   Knowledge/education
    *   Practical experience

*   **Breadth of Expertise in the Technical Specialty**

    *   Knowledge/education
    *   Practical experience

*   **Ability to Effectively Apply Acquired Technical Expertise to Both Routine/familiar and Nonroutine/unfamiliar Situations**

Figure 3-56:   Factors Affecting Functional/Technical Effectiveness

include a description of the relationship (i.e., associative/categorical, sequential or functional) between the two respective variables defining the cell (if any such relationship exists). Many, perhaps most, of the cells in the matrix would be empty, indicating no significant relationship exists between the variables. Figure 3-57 illustrates how the influence diagram model shown in Figure 3-53 would be transformed into its matrix format. The real utility of the matrix format is that it can be readily operationalized using a computer.

	EXECUTIVE EFFECTIVE.	PROF. MILITARY EFFECTIVE.	GENERAL MANAGEMENT EFFECTIVE.	FUNCTIONAL-TECHNICAL EFFECTIVE.
PROFESSIONAL MILITARY EFFECTIVENESS		/////		
GENERAL MANAGEMENT EFFECTIVENESS			/////	
FUNCTIONAL - TECHNICAL EFFECTIVENESS				/////

Figure 3-57: Matrix of Primary Executive Effectiveness Factors

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CHAPTER IV

ANALYSIS OF THE AIR FORCE
EXECUTIVE ASSESSMENT AND
DEVELOPMENT SYSTEM

Overview

Chapter IV focuses on the study's second principal objective:

> Describe, analyze and evaluate the system/process by
> which the air force assesses and develops executive
> capabilities in its officers; include in this analysis
> and evaluation the executive self-assessment and
> development course developed by the Air War College.

The chapter comprises three sections. Each section addresses one of the research questions associated with the objective. The first section proposes criteria (and associated standards) to be used to evaluate the Air Force's executive assessment and development system/process. It also proposes criteria to be uses to evaluate the Air War College's resident course for executive self-assessment and development.

The second section describes, analyzes and evaluates the current Air Force executive assessment and development system. This analysis and evaluation is accomplished by systematically comparing the existing

system/process with the evaluation criteria proposed in the first section of the chapter.

The third section of the chapter describes, analyzes and evaluate the Air War College's resident course in executive self-assessment and development. As in the second section, the analysis and evaluation is accomplished by comparing the structure and content of the existing course against the evaluation criteria prescribed in the first section.

(RQ 2.1) __What criteria (and associated standards) should be used to__
__evaluate:__

(2.1.1) The Air Force's system/process for assessing executive capabilities, qualifications and effectiveness in its officers?

To be effective, the Air Force's system/process for assessing an officer's executive qualifications, competencies and performance should satisfy a number of definitive criteria. More specifically, the Air Force executive assessment system/process should (ideally) satisfy the following criteria and standards:

(1) It should provide a clear, comprehensive and definitive statement of the specific executive skills, qualifications and competencies the Air Force values, and which it believes are required for effective performance in executive-level positions, now and in the future. These are the executive capabilities, qualities and qualifications the Air Force seeks to develop in its officers. _Ideally_, these factors would be based on objective, empirical research that validated the relationship between each respective factor and executive effectiveness in the Air Force. In the absence of such research, these factors should at least be the product of a systematic synthesis and reconciliation of "expert opinion," e.g., the opinion of senior Air Force leaders.

(2) It should include a cybernetic process to ensure that officially-recognized executive effectiveness factors are regularly (and automatically) reviewed, revalidated and updated in anticipation of, or in response to, changing executive performance requirements. This criterion is important

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because it recognizes, as was discussed in Chapter III, that Air Force executives of the future will most likely require a somewhat different set of competencies and qualifications than are currently required. This is a consequence of the evolving nature of the military, political, economic, technological, and social environments with which Air Force executives must interact. The responsibility for this periodic review process should be clearly established and institutionalized.

(3)   The system/process should establish for each executive effectiveness factor (i.e., each desired executive qualification and competency), a specific operational definition which clearly conveys the specific instrument or method to be used to measure or assess the factor. Each of these assessment methods or instruments should exhibit the following characteristics:

(a) Validity. The instrument/method should actually measure the executive effectiveness factor it purports to gauge. Validity is unquestionably the most important assessment/measurement characteristic. It is also, in general, the most difficult to ensure. For example, a college degree may or may not be a valid indicator of knowledge/competency in a particular academic or technical discipline.

(b)   Reliability. If the factor being assessed remains unchanged, the instrument should provide the same measure of that factor in repeated applications or trials. It is essentially the quality of measurement consistency. To be somewhat more precise, reliability is a measure of unsystematic variation in the measurement instrument. Clearly, an assessment method can be reliable without being valid.

(c) <u>Precision/Accuracy</u>. The assessment instrument or method should be capable of gauging the actual level of the executive effectiveness factor being measured within an acceptable tolerance. Precision or accuracy is a measure of <u>systematic variation</u> in the instrument.

(d) <u>Objectivity</u>. Ideally, the assessment instruments and methods should be insensitive to the inaccurate and invalid biases and value judgments of third parties involved in the assessment process. Frequently, objective measures of executive effectiveness factors are not readily available and subjective assessments must be used. In these instances, the risk of assessor bias must be carefully considered.

(e) <u>Clarity</u>. The measurement instruments used to assess respective executive effectiveness factors must be clear and readily understood by both the individual applying the instrument and those people who interpret the results of such measures. Lack of clarity can adversely affect validity, reliability and precision. Equally important, if the results of a particular assessment are difficult to interpret or ambiguous, an executive development strategy based on the assessment might well be ineffective or even unnecessary.

(f) <u>Convenience</u>. Assessment instruments and methods should also be readily available and easy to use. If extensive or excessive effort is involved in accomplishing the assessment, officers are less likely to submit to the assessment without coercion, an influence which might well, in itself, negatively bias the measurement.

(4) For each assessment measure or method used, there should ideally be an associated and explicitly-stated standard. The very notions of assessment and development imply comparison against an accepted standard.

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Establishing explicit standards is difficult to do. For example, the model developed in Chapter III suggests that the ability to deal with complexity and abstraction is important to executive performance effectiveness. As difficult as it is to measure this ability (with validity, reliability, precision, etc.), it might well be even more difficult for the Air Force to define what is an acceptable standard. Nevertheless, without such standards, it is difficult, if not impossible, to make informed, meaningful decisions concerning the need for executive development effort and, if required, the most appropriate strategy for accomplishing the amount and/or type of development required.

(5) The system/process should clearly and unequivocally spell out the respective responsibilities of everyone involved in the executive assessment process, including (but not necessarily limited to):

(a) *The individual officer (i.e., self assessment)*;

(b) The officer's supervisor/commander and chain of command, including concerned agencies at the major command and HQ USAF levels; and

(c) The Military Personnel Center, *including various assessment* and selection boards convened by the Center.

(6) The system should provide for a systematic, periodic and routine application of the assessment instruments/methods.

(7) As is the case with its component assessment instruments/methods, the Air Force's executive assessment system or process as a whole should be both easy to understand and convenient to use. If it is not, its effectiveness and utility, both to the Air Force and to individual officers, will be limited.

(8)   It should provide the individual officer with timely, complete and readily understood feedback on the results of the periodic assessment, so that the officer has a clear profile of strengths and weaknesses on the respective executive effectiveness factors.

(2.1.2)   The Air Force's system/process for developing executive capabilities, qualifications and effectiveness?

Similarly, the Air Force system/process for developing desired executive skills, qualifications, competencies and effectiveness should also meet a number of definitive criteria and associated standards. These include:

(1)   The system/process should be based directly on the results of an executive assessment process that conforms to the criteria and standards specified in the previous section.

(2)   For each executive effectiveness factor, the system should explicitly identify one or more specific methods or technologies for developing the particular skill, qualification or competency to the extent indicated by the assessment process.

(3)   The system/process should clearly and unequivocally spell out the respective responsibilities of everyone involved in the executive development process, including (but not necessarily limited to):

(a)   The individual officer (i.e., self development);

(b)   The officer's supervisor/commander and chain of command, including concerned agencies at the major command and HQ USAF levels;

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(c)   The Military Personnel Center, including various assessment and selection boards convened by the Center; and

(d)   Air Force, Department of Defense and other public and private schools, institutions or training/development centers.

(4)   Opportunities for (i.e., access to) developing executive skills, qualifications, competencies and effectiveness should be widely available to all eligible and qualified officers.

(2.1.3)   The Air War College's course in executive self-assessment and development?

In general, the Air War College's course in executive self-assessment and development should conform to the criteria and associated standards described in the preceding two sections.   Stated more specifically, the course should (ideally) satisfy the following additional criteria:

(1)   It should be readily available to all qualified and eligible officers, i.e., not just those officers attending the resident school;

(2)   The objectives of the course should be clearly defined;

(3)   The relation of the Air War College course to the Air Force's total system/process for assessing and developing executive skills, qualifications, competencies and effectiveness should be clearly established;

(4)   Important limitations and assumptions should be clearly stated;

(5)   The course should clearly define the executive effectiveness factors included and their respective and relative significance.   The course should be based on those specific factors which contribute directly and

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significantly to executive effectiveness in the Air Force;

(6)   Course materials in general, and assessment instruments in particular, should be readily understood and convenient to use;

(7)   To the extent possible, assessment instruments should be self-scoring and their results readily interpretable by the individual officers; and

(8)   For each executive effectiveness factor for which the self-assessment indicates further development is required or useful, the course should clearly describe specific methods, technologies and resources available to assist the officer in acquiring the desired skill, qualification or competency.

(RQ 2.2)   How does the Air Force's current executive assessment and development system/process compare with the proposed evaluation criteria?

Description of the Current System.

Review of official Air Force publications and discussion with concerned agencies at the Air Force Military Personnel Center revealed that there currently exists no formally developed, comprehensive system or process designed specifically to systematically assess and develop executive-level skills, qualifications, competencies and effectiveness in its officers. In fact, a complete understanding and description of the total de facto executive assessment and development system must be inferred and synthesized from a number of references, including (but not necessarily limited to):

(1)   AFR 36-9: General Officer Evaluations (10 May 1988);

(2)   AFP 36-6: USAF Officer's Guide to the Officer Evaluation System (1 August 1988);

(3)   AFR 36-10: Officer Evaluation System (1 August 1988); and

(4)   AFR 36-23: Officer Professional Development (1 January 1989).

At the time this study was conducted, the Air Force's system for officer professional development (OPD) was undergoing the most significant and comprehensive restructuring since the Defense Officer Personnel Management Act of 1981. This restructuring was initiated by the Air Force Chief of Staff, General Larry D. Welch. It encompasses the professional development of all Air Force officers and includes, but is not specifically directed at, officers serving in, or preparing to serve in, executive-level positions of command, authority and responsibility. Consequently, the Air Force's system

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for assessing and developing the competency and effectiveness of its officers, including those in executive positions, is currently in a state of evolution, instability and some uncertainty.

General Welch's restructuring of the Air Force's professional development system was motivated principally by his concern for the apparent culture and ethic growing within the officer corps that emphasized "careerism" and "square filling," rather than performance and professionalism (190). The main elements of the restructured assessment and development program include:

(1)   Air Force Regulation 36-23: Officer Professional Development. This regulation (formerly titled Officer Career Development) was completely rewritten to change the focus and emphasis from career management to professional development (008; 009). It is intended to provide a clear, comprehensive description of the philosophy, policies and procedures for assessing and developing the professional competency of Air Force officers serving at all levels.

(2)   Officer Evaluation System (OES). The cornerstone of the revised OPD system is the new OES. It is the system by which an officer's performance effectiveness and potential for promotion are assessed. It's primary thrust is to increase the focus on the officer's performance in his/her current job as the basis for assessing the officer's potential to serve effectively in positions of increased authority and responsibility. The OES was also revised to mitigate appraisal inflation and the inordinate influence of the (rank of the) indorsing official.

(3)   Assignment Policies.   The new OPD system also modifies the policy

for assigning officers, particularly company ade officers. Under the new

policies, assignments at the company grad level will focus on developing

depth of functional competence and expertise, particularly at the wing level

or below.   The number of company grade officer assignments at higher

headquarters staffs and the number of "special" assignment requests are being

significantly reduced.   After an officer reaches field grade rank (i.e.,

major), assignments are focused at extending the officer's breadth of

experience and competency in more genera` staff assignments.

(4)   Professional Military Education (PME).   The new OPD system

restructures the points in an officer's career at which the officer is

eligible to attend Squadron Officer School (SOS), intermediate service school

(e.g., Air Command and Staff College (ACSC)) and senior service school (e.g,

Air War College (AWC)). This was done to deemphasize the "square filling"

aspect of PME and to better align the respective schools with associated

phases in the officer's professional development process. The curricula of

the intermediate and senior service schools are also being revised to place

more emphasis on warfighting skills and on joint and combined warfare. More

emphasis is also placed on attending SOS and ACSC in residence (vice

completing the school by correspondence or seminar).

Both the former and the revised OPD systems incorporate an annual formal

assessment of the officer's performance and potential. However, these annual

appraisals are designed primarily for assessing promotion potential, rather

than professional development.   Professional development is accomplished

through assignments designed to extend both the depth and breadth of

experience and expertise, formal schooling (including continuing education courses, advanced degree programs and PME), and self-improvement initiatives.

Under the current system, the individual officer is primarily responsible for assessing his own professional strengths and weaknesses and the need for professional development, based on interpreting annual performance appraisals completed by the supervisor, self-appraisal (normally accomplished through subjective introspection) and informal feedback from superiors, peers and subordinates. The officer is also primarily responsible for taking the initiative to influence the assignment process, though under the new OPD system, the officer's commander plays a greater role in the process. Of course, the Air Force as an institution (i.e., through the Military Personnel Center), makes the final decision on the officer's assignments, based on (ideally) a consideration of both the immediate manpower needs of the Air Force and the individual officer's professional development needs. Guidance for structuring the officer's assignment pattern to properly facilitate professional development is outlined in AFR 36-23 (Part II).

The individual officer also has the primary responsibility for completing follow-on academic and professional military education at the appropriate phase points in the professional development process. Guidance for follow-on education is also contained in AFR 36-23.

In summary then, the current OPD system can perhaps be best characterized as a rather loosely-structured, generally-directed process in

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which the individual officer has the primary responsibility for interpreting the results of formal and informal assessments and for devising/managing his/her own personal professional development program in accordance with the general guidelines described in AFR 36-23.

Analysis of the Current System.

The first prescribed criterion suggested that the system should provide a clear, comprehensive and definitive statement of the specific skills, qualities and qualifications required for effective performance at the executive level, now and in the future. AFR 36-9 ("General Officer Evaluations") describes current Air Force policy and procedures for assessing the competencies, qualifications and effectiveness of officers serving in the grades of brigadier general (including selectees) and major general. It is significant to note that these assessments are _totally_ subjective and unstructured. They are made without reference or regard to any specified effectiveness factors. It is also interesting to note that AFR 36-9 (paragraph 5.d) specifically prohibits the rating and indorsing officials from discussing the assessment with the officer being evaluated. Consequently, these appraisals have little or no utility to the individual officer as a basis for self-initiated executive development actions. They might be of some general value to the officer doing the assessment (typically, the ratee's supervisor) as a guide for identifying executive development actions which he/she might want to take or recommend to facilitate further executive development on the part of the officer being assessed.

AFR 36-10 ("The Officer Evaluation System") describes current Air Force philosophy, policy and procedures for assessing the performance effectiveness of all other officers, i.e., those officers below general officer/flag rank. Section 1-4 of this regulation asserts:

> The OES and Professional Development. The OES is an integral part of the Air Force Officer Professional Development Program and strongly supports the program's goals and philosophy. The purpose of professional development is threefold: to increase each officer's qualifications and competence in performing daily duties; to prepare officers for future challenges; and to help ensure the best qualified officers are advanced in grade and responsibility. The OES reinforces this purpose through feedback to enhance performance, a focus on performance in the evaluation process, and performance-based promotion recommendations. (OO7: 6)

Under the current system, performance appraisals or assessments are conducted annually. Air Force Form 707A (Figure 4-1) is used to structure and guide the assessment process for all field grade officers, including colonels. Air Force Form 707B (Figure 4-2) is a similar form used to structure the assessment process for company grade officers. These forms do identify specific performance factors to be considered in appraising or assessing the officer. However, it is insightful to compare the two appraisal forms to identify those effectiveness factors the Air Force, as an institution, believes are significant in assessing field grade versus company grade officers. Following is a list of those additional factors which are considered in assessing field grade officers (in all other respects, the effectiveness factors considered for the two officer groups are identical):

(1) Job Knowledge:

Applies knowledge to handle nonroutine situations;

I. RATEE IDENTIFICATION DATA *(Read AFR 36-10 carefully before filling in any item)*

1 NAME *(Last, First, Middle Initial)*		2. SSN	3. GRADE	4. DAFSC

5. PERIOD OF REPORT		6. NO. DAYS SUPERVISION	7. REASON FOR REPORT
From	Thru		

8. ORGANIZATION, COMMAND, LOCATION	9. PAS CODE

II. UNIT MISSION DESCRIPTION

III. JOB DESCRIPTION 1. DUTY TITLE:
2. KEY DUTIES, TASKS, AND RESPONSIBILITIES

IV. IMPACT ON MISSION ACCOMPLISHMENT

V. PERFORMANCE FACTORS	DOES NOT MEET STANDARDS	MEETS STANDARDS
1. Job Knowledge Has knowledge required to perform duties effectively Strives to improve this knowledge. Applies knowledge to handle nonroutine situations.	☐	☐
2. Leadership Skills Sets and enforces standards. Motivates subordinates. Works well with others. Fosters teamwork. Displays initiative. Self confident. Has respect and confidence of subordinates. Fair and consistent in evaluation of subordinates.	☐	☐
3. Professional Qualities Exhibits loyalty, discipline, dedication, integrity, and honesty. Adheres to Air Force standards. Accepts personal responsibility. Is fair and objective	☐	☐
4. Organizational Skills Plans, coordinates, schedules, and uses resources effectively. Schedules work for self and others equitably and effectively. Anticipates and solves problems. Meets suspenses	☐	☐
5. Judgment and Decisions Makes timely and accurate decisions. Emphasizes logic in decision making. Retains composure in stressful situations. Recognizes opportunities and acts to take advantage of them	☐	☐
6. Communication Skills Listens, speaks, and writes effectively	☐	☐

AF Form 707A, AUG 88   PREVIOUS EDITION IS OBSOLETE   **FIELD GRADE OFFICER PERFORMANCE REPORT**

Figure 4-1:   Air Force Field Grade Officer Performance Report

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I. RATEE IDENTIFICATION DATA *(Read AFR 36-10 carefully before filling in any item)*

1. NAME *(Last, First, Middle Initial)*	2. SSN	3. GRADE	4. DAFSC

5. PERIOD OF REPORT		6. NO. DAYS SUPERVISION	7. REASON FOR REPORT
From:	Thru.		

8. ORGANIZATION, COMMAND, LOCATION	9. PAS CODE

II. UNIT MISSION DESCRIPTION

III. JOB DESCRIPTION 1. DUTY TITLE:
2. KEY DUTIES, TASKS, AND RESPONSIBILITIES:

IV. IMPACT ON MISSION ACCOMPLISHMENT

V. PERFORMANCE FACTORS	DOES NOT MEET STANDARDS	MEETS STANDARDS
1. Job Knowledge Has knowledge required to perform duties effectively. Strives to improve that knowledge.	☐	☐
2. Leadership Skills Sets and enforces standards. Works well with others. Fosters teamwork. Displays initiative. Self-confident.	☐	☐
3. Professional Qualities Exhibits loyalty, discipline, dedication, integrity, and honesty. Adheres to Air Force standards. Accepts personal responsibility. Is fair and objective.	☐	☐
4. Organizational Skills Plans, coordinates, schedules, and uses resources effectively. Meets suspenses.	☐	☐
5. Judgment and Decisions Makes timely and accurate decisions. Emphasizes logic in decision making. Retains composure in stressful situations. Recognizes opportunities. Requires minimal supervision.	☐	☐
6. Communication Skills Listens, speaks, and writes effectively.	☐	☐

AF Form 707B, AUG 88   COMPANY GRADE OFFICER PERFORMANCE REPORT

Figure 4-2:   Air Force Company Grade Officer Performance Report

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(2) Leadership Skills:

   (a) Motivates subordinates;

   (b) Has respect and confidence of subordinates; and

   (c) Fair and consistent in evaluation of subordinates.

(3) Professional Qualities:

   (No difference between the two)

(4) Organizational Skills:

   (a) Schedules work for self and others equitably and

effectively; and

   (b) Anticipates and solves problems.

(5) Judgment and Decisions:

   Acts to take advantage of recognized opportunities.

This relative lack of significant discriminators (between company grade

and field grade officers) implies an assumption that the factors affecting

performance effectiveness do not vary significantly between various levels

of authority and responsibility in the Air Force. As the analysis of

research question 1.5 in Chapter III demonstrated, this assumption is clearly

inconsistent with the preponderance of evidence on the issue.

To reiterate and emphasize an important and related point, within the

field grades, no differentiation is made between the factors considered to

be significant in assessing the performance of the most junior major and the

most senior colonel (i.e., in the context of this study, an officer serving

at the executive level), despite the obvious differences in (e.g.) the

responsibility, authority, influence, scope, complexity and variety of jobs

normally held by colonels, compared with those held by majors. The very structure of the assessment instrument assumes that the factors affecting officer performance effectiveness within the field grades are independent of the significant differences which actually exist in the actual character of the positions to which majors, lieutenant colonels and colonels are assigned respectively.

Several other points relative to the effectiveness factors used to assess performance are also significant. First, comparing the factors included on the AF Form 707A with those included in the comprehensive model developed in Chapter III suggests that many important factors affecting performance at the executive level in the Air Force are not explicitly considered. Secondly, the assessment instruments (i.e., both the AF Form 707A and 707B) simply ask the rater to make a subjective judgment as to whether or not the officer meets or does not meet standards. Objective standards are not associated with any of the effectiveness factors. It is also interesting to note that the OES includes a "performance feedback worksheet," AF Form 724 (Figure 4-3). This new form includes only the factors show⌐ ,n the AF Form 707B for assessing company grade officers. Use of the form is mandatory for company grade officers and optional ("but encouraged") for field grade officers (even though the form does not include a:y of the factors which distinguish the field grade officer assessment instrument from the instrument used for company grade officers). However, for each factor included on the feedback worksheet, there is an associated continuous scale on which the rater can mark with an "X" where the officer (i.e., the ratee) falls on the continuum, providing at least some indication

NAME		GRADE	UNIT

DUTY PERFORMANCE	needs significant improvement	needs little improvement	COMMENTS

JOB KNOWLEDGE	needs significant improvement	needs little improvement	
Has knowledge required to perform duties effectively			
Strives to improve knowledge			

LEADERSHIP SKILLS	needs significant improvement	needs little improvement	
Sets and enforces standards			
Works well with others			
Fosters teamwork			
Displays initiative			
Confident in own ability			

PROFESSIONAL QUALITIES	needs significant improvement	needs little improvement	
Exhibits loyalty, discipline, dedication, integrity, and honesty			
Adheres to Air Force standards			
Accepts personal responsibility			
Is fair and objective			

ORGANIZATIONAL SKILLS	needs significant improvement	needs little improvement	
Demonstrates ability to plan			
Coordinates actions			
Schedules effectively			
Uses resources effectively and efficiently			
Meets suspenses			

JUDGMENT AND DECISIONS	needs significant improvement	needs little improvement	
Makes timely and accurate decisions			
Emphasizes logic in decision making			
Retains composure in stressful situations			
Recognizes opportunities			
Requires minimal supervision			

COMMUNICATION SKILLS	needs significant improvement	needs little improvement	
Listening			
Speaking			
Writing			

AF Form 724, AUG 88   PERFORMANCE FEEDBACK WORKSHEET

Figure 4-3: Air Force Officer Performance Feedback Worksheet

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of the need for additional development. Here too, however, no objective standard is explicitly specified.

AFR 36-23, Part II, provides for each functional specialty, a general narrative description of the assignments/experience, PME and academic education associated with each phase in the officer's professional development process. Typically, this process is divided into three phases of development: initial (0 - 6 years), intermediate (7 - 14 years) and advanced (15 - 21 years). These narrative descriptions provide a very general and indirect indication of the skills, experience, education and general qualifications required to perform effectively at various levels of responsibility within a particular functional specialty. However, the functional professional development profiles included in Part II extend only through the 20-year point and the rank of lieutenant colonel. Relatively little discussion is given to the factors affecting the performance of officers serving in executive level positions/grades and the continuing professional development of those officers.

The second prescribed criterion implied that the executive assessment and development system should include a mechanism to ensure that executive effectiveness factors are routinely and automatically reviewed to ensure they remain valid and relevant to the changing nature of the environment challenging Air Force executives. The existing Air Force (de facto) system for executive assessment and development satisfies this criterion (only) to the extent that all Air Force publications and forms must be periodically reviewed by the responsible agency to ensure the publication's continued

need, relevancy and currency. Realistically, such routine administrative reviews are seldom substantive. Significant changes and updates, such as was recently accomplished with the Officer Evaluation System (AFR 36-10) and Officer Professional Development (FR 36-23) are generally accomplished on an ad hoc basis and in response to specific, nonroutine management initiatives. Considering this, and the fact that there currently exists no formal Air Force system or process designed specifically to systematically assess and develop executive-level capabilities, qualities, qualifications and effectiveness, it seems appropriate to conclude that no such mechanism to systematically ensure the continuing relevance and validity of executive effectiveness factors currently exists.

The third criterion required that a system for executive (self-) assessment and development should establish for each executive effectiveness factor a specific operational definition, i.e., a specified and accepted method of measuring or assigning values to the factor. Further, the criterion stipulated that such measurement instruments and methods should (ideally) be valid, reliable, precise, objective, readily-understood (both in application and interpretation) and convenient to use. The annual performance appraisal, using AF Form 707A, is currently the only formal assessment done (by the Air Force as an institution) on officers preparing for or serving in executive-level assignments. It is worth reiterating that this annual appraisal is not accomplished primarily as a means for guiding professional development (especially at the field grade level where performance feedback is not required). Rather, it is used to assess

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promotion potential based <u>primarily</u> on the officer's performance effectiveness in the current job.

Reviewing the AF Form 707A (Figure 4-1) and the associated guidance in AFR 36-10, it is apparent that the existing Air Force system does not specify operational definitions for any of the factors to be used in assessing the officer's performance. Rather, the rater/assessor makes a subjective judgment of both how to measure the officer's performance level on a given factor and the level of that measure. The failure of the current system to employ specified, standardized operational definitions greatly increases the risk that such subjective assessments are of questionable validity, reliability, precision and objectivity.

As important as these limitations are for executive assessment and development, they are even more significant for purp. .es of appraisal for promotion potentia., in which appraisals prepared by different raters, using different operational definitions for the respective performance factors (as well as different standards for each factor) are cc .pared and ranked with one another. While it might be argued that the appraisals/assessments prepared by a particular individual should be internally valid and reliable (not necessarily itself a valid assertion), the current system provides virtually no protection against threats to <u>external</u> validity and reliability (i.e., the probability that two or more different raters would consistently appraise an officer in the same way on a particular performance factor, using the same operational definition and associated standard).

Closely related to the requirement for specified, standardized operational definitions for the respective performance factors is the criterion to specify associated standards. Conceptually, such standards are absolutely essential to making a meaningful assessment of an officer's strengths and weaknesses and the need for professional development to improve performance effectiveness. As has been implied by the foregoing analysis, no such standards are explicitly established in the existing Air Force system. In some cases, these standards and their related operational definitions can, however, be _inferred_ from the guidance in AFR 36-23. The following examples are used to illustrate such inferences of de facto Air Force effectiveness factors and their associated operational definitions and standards:

(1) _Factor_: Understanding of basic military concepts

(a) _Operational definition_: Military education acquired at the Air Force Academy or through a Reserve Officer Training Corps program

(b) _Standard_: Possession of the commission

(2) _Factor_: Technical knowledge

(a) _Operational definition_: College-level education

(b) _Standard_: Possession of a degree in the technical specialty from an institution accredited by some recognized authority

(3) _Factor_: Breadth of experience

(a) _Operational definition 1_: Number of different major commands served in, as reflected in the officer's official service record

(b) _Standard (e.g.)_: At least three, one of which should be an overseas command or a joint command

(c)   <u>Operational definition 2:</u>   Assignments in different functional areas within the officer's functional specialty (e.g., in the Civil Engineering specialty, this would include assignments in planning and programming, engineering and construction, operations, readiness, family housing and fire protection), as reflected in the officer's official service record.

(d)   <u>Standard (e.g.):</u>   Prior to commanding a civil engineering squadron, the officer must have had prior experience in each of the functional areas

(4)   <u>Factor</u>:   Understanding of advanced concepts in the military arts and sciences

(a)   <u>Operational definition:</u>   Professional military education (PME) courses offered by the Air Force (or other services)

(b)   <u>Standard:</u>   Completion of the appropriate level of PME at the point in the professional development process specified in AFR 36-23

The foregoing examples are meant to be illustrative, rather than definitive. The primary point to be made here is that, <u>in general</u> (with some exceptions), these factors, their operational definitions, and especially their associated standards are not clearly and explicitly stated and must be inferred.   Such required inference provides the opportunity for misinterpretation on the part of officers attempting to develop a systematic professional development strategy.

The prescribed criteria also included the requirement for the system to provide for systematic, periodic and routine assessments.   The existing Air

Force system does satisfy this criterion, but only to the extent that the annual performance appraisal represents a valid and useful assessment for purposes of executive development. However, if one accepts the previous assertion that the annual performance appraisal is not generally conducted (primarily) for the purpose of systematic, continuing professional development (especially for field grade officers), the existing system also fails to satisfy this criterion.

As previously prescribed, the Air Force's executive assessment (and development) system should also be easy to understand and convenient to use. Considering the assessment element, and to the extent that the annual performance appraisal can be considered a valid and useful assessment for purposes of professional development, the existing system (as described in AFR 36-10) is relatively straightforward, easy to understand and convenient to use. Apart from issues of validity, reliability, precision and objectivity, the new (August 1988) AF Form 707A/B is certainly less complex than its predecessor.

Similarly, the 1 January 1989 revision to AFR 36-23 provides a relatively easy-to-understand and convenient-to-use description of the current professional development system. This is important in the sense that this regulation provides the basic guidance for officers to use in structuring a personal executive development program.

The final criterion specified for an Air Force executive assessment system is that it should provide the officer with complete, timely and

readily-understood feedback on the results of the periodic assessment. This is essential for developing or modifying an existing executive/professional development program that is truly responsive to the officer's development needs. Here too, the existing system fails to satisfy the criterion. While feedback on the annual appraisal/assessment is **mandatory** for company grade officers, it is optional (but encouraged) for field grade officers.(007:10) With regard to the annual appraisal/assessment of officers in the rank of brigadier general (including selectees) and major general, the regulation (AFR 36-9, paragraph 5.d.) **specifically prohibits** rating and indorsing officials from discussing the annual rating with the officer.(006:2) It is interesting to note that the annual appraisal system for civilians (at least those serving in general schedule or general management positions, including those in executive-level positions) also makes feedback mandatory (i.e., the individual must acknowledge by signature that he/she has reviewed the completed assessment).

The initial section of this chapter also specified a number of criteria that the Air Force's executive/professional development system should satisfy. The first, and probably most important, of these criteria is that the development process should be based directly on an assessment system that conforms to the previously prescribed and discussed criteria. AFR 36-23 (section 1-4) recognizes this important relationship and asserts that the OES is an integral component of the Air Force professional development system for all officers, including, by implication, those preparing for or currently serving in executive-level assignments.(009:9) Specifically, it states,

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"The OES is a tool that officers can use in their own professional development and in the development of those officers they supervise."(009:9)

Despite the foregoing assertion, it is apparent that:

(1)   The annual performance appraisal is not designed primarily for professional development;

(2)   As currently structured, the annual assessment is oriented toward the officer's effectiveness in the present assignment, not in assessing the officer's progress in acquiring the capabilities, qualities and qualifications required for effective performance in positions of greater responsibility and authority; and

(3)   There is no positive and direct linkage between the annual appraisal and the executive/professional development process. This linkage is rather indirect and very tenuous, at best. The assessment instrument (AF Form 707A for field grade officers) does not even include, for example, a block for professional development recommendations.   Currently, the only formal method of identifying and documenting such recommendations is in the "Commander's/ Supervisor's Comments" block on the Air Force Form 90 (Officer Assignment Worksheet.(009:16-18)   The individual officer is essentially required to infer professional development requirements from a review of the annual appraisal, in the context of prior appraisals, to identify positive and negative trends, and to integrate that input with the guidance provided in AFR 36-23 and feedback or recommendations obtained from various other sources, e.g., the officer's supervisor or commander.

The Air Force executive development system should (ideally) also specify for each executive effectiveness factor one or more specific methods or technologies for developing the required competency or qualification. Again, under the current system, this is only done to a very limited extent. For example, AFR 36-23 and other associated guidance suggests or at least implies, for example, that an officer in the rank of lieutenant colonel who is preparing for executive-level assignments should possess or acquire a general degree of competency in areas such as national security policy, military doctrine and strategy and world geopolitics. If the officer self-assesses himself/herself to be deficient in these subjects (by introspectively imposing a subjective standard), the existing guidance implies that the officer can develop these competencies by completing one of the available senior service schools, e.g., Air War College, either in residence or by one of the alternative options available (correspondence or non-resident seminar). Theoretically, the officer could acquire the very same knowledge through a personal reading program covering the same subjects. However, the existing de facto development system, particularly to the extent it is described in official publications, is incomplete. For most of the effectiveness factors included in the annual assessment, AFR 36-23 makes no specific recommendation as to an appropriate associated development technology. AFR 36-23 does not, for example, relate to the specific effectiveness factors included in the annual assessment (i.e., on AF Form 707A and described in AFR 36-10) those specific education and training courses (described in Air Force 50-series publications) or available assignment opportunities which would be appropriate for improving the respective competencies.

Another criteria specified for an effective Air Force executive development system is that it should clearly and unequivocally detail the responsibilities of everyone involved with the process. In this regard, Chapter 2 of AFR 36-23 describes the shared, complementary responsibilities of:

(1)   HQ USAF;

(2)   Air Force Military Personnel Center;

(3)   Major commands;

(4)   The servicing consolidated base personnel office;

(5)   Commanders and/or supervisors; and

(6)   The officer. (009:11-13)

This discussion seems generally adequate, with perhaps ore notable exception. Paragraph 2-7 describes the individual officer's role and responsibilities in the development process.(009:13)   However, the discussion seems extraordinarily superficial, considering that, de facto, the officer has the primary responsibility for his or her own (executive) professional development. The thrust of the discussion in AFR 36-23 is simply that, "Air Force officers have the responsibility to optimize their contribution to the Air Force mission through job performance."(009:13) No mention is made, for example, of the officer's responsibilities for self-assessment or for building an executive/professional development plan based on that self-assessment.

The final criteria specified for an effective Air Force executive development program is that the opportunities to develop executive skills and qualifications should be readily available to all eligible and qualified

officers. Against this criterion, the existing system seems to earn a "mixed review," doing well in some areas, but very poorly in others. For example, while the opportunity to attend senior service school in residence is very limited, the associated correspondence and seminar programs make these schools available to virtually all eligible officers. In contrast, while experience in commanding a squadron is generally seen as an essential prerequisite to command of larger units (e.g., groups or wings), the opportunity to command a squadron is very limited and selection for such a command is highly competitive.

Another important example of limited opportunity for executive development is the Air Force's Advanced Management Program. This program is designed to provide officers (in the rank of colonel) currently serving at the executive level the opportunity to further develop those skills required to perform effectively in even more responsible positions. The program is significant because it is one of only a very few formal executive development programs for officers who are currently serving at the executive level. To be eligible for this program, officers must have served at least two years as a colonel and have demonstrated some potential for promotion to general officer rank.(196) Officers selected for the program are sent to one of the executive development programs described in Appendix A. However, of all the serving colonels who meet the eligibility requirements and could who certainly benefit from the program, less than 20 officers are selected each year. That amounts to less than half the total number of officers selected for promotion to brigadier general each year.

(RQ 2.3) How does the Air War College's course in executive self-assessment and development compare with the proposed evaluation criteria?

The Executive Assessment and Development Course presented at the Air Force's Air War College (i.e., at the resident school located at Maxwell Air Force Base, AL) is the only Air Force program (identified in this study) designed specifically to help officers prepare for executive-level assignments. In general, it is intended to assist them in:

(1) Assessing their own competencies, qualifications and limitations, relative to executive-level assignments in their respective functional specialties; and

(2) Constructing a personal executive/professional development action plan.

This section of the chapter comprises two parts. The first part provides a general description of the course as it is currently developed. The second part analyzes the course by comparing it to the criteria specified in the first section of the chapter.

Description of the Course.

The overall objective of the course is for the student:

To value a self-assessment program that enhances individual awareness of behavioral and psychological factors related to personal effectiveness. To analyze personal cardiovascular and stress conditions, evaluate exercise and diet plans, and adopt life style changes as needed.(130:iv)

The course also has the following sub-objectives:

(1)   To evaluate specific behavioral factors related to personal effectiveness;

(2)   To build an executive development model which focuses personal energies more effectively to get the results wanted in life;

(3)   To create an awareness for health promotion and disease prevention to improve and to maintain military readiness; and

(4)   To encourage a healthy life through an integrated, coordinated, and comprehensive health promotion program.

As currently structured, the course comprises 10 instructional periods. Figure 4-4 lists these periods and the associated number of hours devoted to each.   Appendix D includes a brief description of each of these periods, including the desired learning outcomes and the associated references.

For the purposes of this study, Instructional Period 3001: Executive Development Challenge, is particularly significant. The basic reference for this period is The Executive Self-Development Challenge by Michelson and Ward.(130)   It provides:

(1)   A conceptual framework for the course;

(2)   An introduction to the concept of executive self-assessment and development; and

(3)   A recommended model to guide the self-assessment and development action planning process.(130)

The scope and focus of the Michelson and Ward framework is, in general, much broader than the executive effectiveness model developed and described in

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NUMBER	DESCRIPTION	HOURS
IP 3000	EXECUTIVE ASSESSMENT AND DEVELOPMENT OVERVIEW	1L
IP 3001	EXECUTIVE DEVELOPMENT CHALLENGE	1L
IP 3002	EXECUTIVE WRITING AND EDITING	3L
IP 3003	MYERS-BRIGGS TYPE INDICATOR	3L-1D
IP 3004	MBTI APPLICATION SEMINAR	2S
IP 3005	FITNESS ASSESSMENT--AWC CLASS OF 89 PROFILE	1L
IP 3006	CARDIOVASCULAR HEALTH	2L-1D
IP 3007	PHYSICAL FITNESS	1L-1D
IP 3008	STRESS MANAGEMENT	2L-1D
IP 3009	WIN WITH WELLNESS	1L

L - LECTURE

D - DISCUSSION

S - SEMINAR

Figure 4-4: Air War College Executive Assessment and
Development Course Instruction Periods

STEP		ACTION
ONE:	Who am I?	"Values and Priorities Identification"
		- Self-Assessment
		- Life Priorities
		- Other Sources of Information
TWO:	Where do I want to go?	"Values and Goals Statement"
		- Values and Goals
		- The Most Important Goals in Each of My Life Areas
THREE:	How do I get there?	"A Development Plan"
		- Goal Assessment
		- Development
FOUR:	How am I doing?	"Feasibility Check"
		- Are My Goals and Planning Realistic?
		- Have I Identified All the Resources and Opportunities Available to Me?
FIVE:	Commitment	"Closing the Loop"
		- Periodic Review
		- A Final Word

Figure 4-5: Executive Self-Development Challenge Assessment Process (130:4)

Chapter III. The Michelson and Ward model includes an introspective assessment of four areas: profession, family, community and personal. The outline of their assessment procedure is shown in Figure 4-5.

Analysis of the Course.

In the context of this study, the title of the Air War College's "Executive Assessment and Development Course" is perhaps somewhat inappropriate, considering its stated objectives, scope and focus. The course is clearly applicable and potentially useful to all Air Force officers, not just those who are serving in, or are about to serve in, executive-level positions. The broad scope of the course, including a self-assessment of values and goals concerning personal, professional, family and community-involvement life areas, and the development of associated action plans to achieve goals in these areas, suggests that the course (as structured) might be more appropriately titled as (e.g.) "Life Planning for Personal and Professional Fulfillment." Such a course is certainly worthwhile. However, because its scope is so broad, it is not directly focused on the objective of this study: providing officers with a systematic approach to self-assessing and developing their competencies and qualifications for effective performance in executive-level positions within the Air Force.

The conceptual framework for the course is provided in the Michelson and Ward reference.(130) It provides a logical, systematic approach to goal setting and follow-on action planning to achieve those goals, in each of the four targeted life-interest areas (i.e., personal, professional, family and

community). However, the reference does not include a comprehensive conceptual framework or model on which to base the structure, content and balance of the course as a whole. In the absence of such a model, there is no basis for understanding why, for example, literally half of the entire course focuses on assessing and, where necessary, improving personal health and fitness. There seems little doubt that health and fitness have a profound affect on personal and professional success. However, the same claim might also be made for many other factors which are not included in the course, e.g., the ability to conceptualize and logically deal with complex and abstract problems, the ability to make effective decisions under conditions of uncertainty and risk, and many others.

Applying the criteria specified in the first section of this chapter provides additional insight into the strengths and limitations of the course as a method for officers to use in assessing and developing executive competencies and qualifications. The first criterion required a clear, comprehensive and definitive statement of the skills, qualifications and competencies valued by the Air Force for officers in executive-level positions. Neither the course as a whole, nor the Michelson and Ward reference, provide such an inventory of target competencies and qualifications. Rather, the course takes a more introspective approach, attempting to guide the individual to more clearly understand his/her own values, aspirations and goals in a number of important life areas.

There seems little question that such self-understanding is very important. However, what is truly significant from an executive/professional

development perspective is how the individual officer's professional values, goals, skills and qualifications compare with the values, competencies and qualifications held to be important (in its executives) by the Air Force as an institution. The Air War College course, as currently structured, does not facilitate this critical comparison. Such a systematic comparative analysis could, for example, be invaluable in helping officers identify critical incompatibilities between basic personal goals/values and the values of the Air Force. In short, both introspective and extrospective assessments are required.

The second, third and fourth criteria for assessing executive effectiveness included in the first section of the chapter were predicated on the notion that the assessment system specified executive effectiveness factors to be measured. Since the Air War College course does not include an explicit inventory of such factors, these criteria could not, in general, be satisfied. However, it should be noted that the course does include a limited number of executive effectiveness factors for which more-or-less sound (i.e., valid, reliable, precise and objective) operational definitions and standards (where appropriate) were specified. These are:

    (1)   <u>Factor:</u>   Preferred modes of behavior

        (a)   <u>Operational definition:</u>   Instrumental Values Survey developed by the U.S. Army Research Institute, Ft. Benning, GA

        (b)   <u>Standard:</u>   None

(2) Factor: Preferred end states of existence

(a) Operational definition: Terminal Values Survey developed by the U.S. Army Research Institute, Ft. Benning, GA

(b) Standard: None

(3) Factor: Leadership behavior style

(a) Operational definition: Leadership Effectiveness and Adaptability Description (LEAD), by Paul Hersey and Kenneth H. Blanchard, copyright 1973.

(b) Standard: None

(4) Factor: Writing effectiveness

(a) Operational definition: Guidelines included in the United States Air Force Executive Writing Course

(b) Standard: Conformance to the specified guidelines

(5) Factor: Personality type/profile

(a) Operational definition: Myers-Briggs Type Indicator, Katherine C. Briggs and Isabel Briggs Myers, copyright 1977.

(b) Standard: None

(6) Factor: Cardiovascular health

(a) Operational definition: Coronary Artery Risk Evaluation (CARE); a physiological profile comprising cholesterol level, weight, percentage of fat, and maximum oxygen uptake

(b) Standard: Standards for cholesterol, weight, body fat percentage and maximum oxygen uptake were specified for various sex-age categories.

(7) <u>Factor</u>:   Ability to effectively manage stress

(a) <u>Operational definition</u>:   Stress Management Inventory by D.D. Warrick and D.G. Gardner, copyright 1983.

(b) <u>Standard</u>:   None

The fifth assessment system criterion, i.e., a clear specification of responsibilities, was met. By definition, the course was designed primarily for self-assessment by the individual officer. In two instances, other agencies were involved. Faculty members of the Air War College were responsible for scoring of the Myers-Briggs instrument and providing feedback to the students. The cardiovascular health/fitness assessment was accomplished by health care professionals under the coordination of the course director.

The sixth criterion calls for the system/process to provide for a systematic, periodic and routine application of the assessment. This criterion is perhaps less relevant to self-assessments. Initial assessment and subsequent reassessment are at the volition and perceived need of the individual officer. However, the Michelson and Ward reference at least intimates the need for periodic reassessment.(130:36)

The self-assessment system should also be easy to understand and convenient to use, and readily accessible by all officers (assessment criterion seven). The Air War College course partially satisfies this condition. It is certainly easy to understand and convenient to use. The majority cf instruments used are self-scorable, so that feedback is

immediate, and the course references include the necessary information to interpret the results of the assessment. However, access to the course is very limited. At the present time, the course is only available at the resident school, attendance at which is very limited. The course is not currently available in the correspondence or seminar versions of the Air War College.

The final general assessment criterion specified in the first section of this chapter was that the system should provide the individual officer with timely, complete and readily-understood feedback. The current Air War College course satisfies this criterion very well.

A number of more specific criteria were also prescribed by which to evaluate the effectiveness of the Air War College course at assessing and developing executive competencies and qualifications (see section 2.1.3). Several of these criteria have already been discussed and do not require additional analysis. The remaining criteria, however, warrant brief discussion. First, the course should clearly specify how the it relates to the overall Air Force system of assessing and developing executive effectiveness. This relationship is not, except by implication, covered in the course. The course also only indirectly discusses important limitations and assumptions.

Finally, and perhaps most importantly, to be effective, the course should clearly specify for each effectiveness factor discussed, those resources, methods and technologies available to help the officer improve in

that area. The course is generally effective in satisfying this criterion. It is especially effective in the areas of executive writing and health/fitness assessment and development. As one might expect, however, the course is somewhat less effective in this regard when dealing with those factors for which standards are not readily specified and the assessment is aimed primarily at self-understanding, e.g., preferred leadership style and personality type.

CHAPTER V

DESIGN OF AN EXECUTIVE

SELF-ASSESSMENT AND

DEVELOPMENT PROGRAM

FOR

AIR FORCE OFFICERS

Overview

Chapter V addresses the third principal objective of the study:

> Describe the design, implementation and continuing
> operation and maintenance of a comprehensive system/
> process developed   specifically to assist individual
> Air Force officers in systematically assessing and
> developing the capabilities, competencies and
> qualifications required to perform effectively in
> executive-level positions within the Air Force and
> Department of Defense.

This objective is the study's primary focus and integrates and applies the

analyses presented in Chapters III and IV. It should be noted that it is

not within the scope of this study to actually develop, in detail, the

proposed system.   The focus of this chapter is on prescribing and

illustrating the process by which an effective Air Force executive self-

assessment and development system should be developed, implemented and

subsequently operated and maintained.

Chapter V comprises seven sections. Each section addresses one of the research questions associated with this study objective. The first section describes the process that should be followed in designing, implementing and operating/maintaining the proposed system. In effect, it is an introduction to the subsequent sections in the chapter.

The second section addresses the objectives, criteria, assumptions and constraints that should be considered in designing, implementing, and operating and maintaining such an executive self-assessment and development system. This discussion leads directly to the chapter's third section, which proposes several conceptual models developed to structure and facilitate the process of designing, implementing and operating/maintaining the system.

The fourth section of the chapter discusses those executive capability and effectiveness factors that should be the basis of the Air Force's executive self-assessment and development system. It is based on the comprehensive model developed in Chapter III. The following section addresses the identification of appropriate (i.e., valid, reliable, precise, objective and convenient) operational definitions or measurement technologies for assigning values to the executive capability/effectiveness factors included in the system. In turn, this discussion leads to the sixth section of the chapter, which deals with the identification of appropriate resources and methods available to assist officers in developing respective executive capability/effectiveness factors.

The chapter's final section discusses the problems, issues and considerations associated with implementing the proposed system. It also addresses factors to be considered in operating and maintaining the system on a continuing basis.

(RQ 3.1)   What process should be followed in designing, implementing and maintaining a comprehensive, effective and practical air force executive self-assessment and development system?

McCauley's insightful research into executive development in the U.S. Army provides a general, conceptual description of the process to be followed in designing an executive self-assessment and development system in military organizations.(125)   Based on related research, she concludes that while executive development is a highly-individual process, it is a process that can be systematized. According to McCauley, one way of making the process more systematic is knowing what specific competencies are important to develop, keeping track of where people stand on these competencies, and feeding this information back to the individuals. She further notes that another important part of the development system is knowing what developmental opportunities to provide for individuals or to suggest that they seek out, given a valid and comprehensive assessment of their individual pattern of strengths and weaknesses.(125:7)   McCauley's premise is essentially the basic thesis of this study.

In the context of McCauley's general, implied process, the initial step in developing an Air Force executive self-assessment and development system is to specify somewhat more explicitly and in greater detail the process to be followed in accomplishing that development, i.e., the process by which the system should be designed, developed, implemented and subsequently operated and maintained. The process should comprise the following steps:

(1) Define the _specific_ objectives the system will be designed to achieve;

(2) Specify the criteria (and associated standards) to be satisfied in designing the proposed system;

(3) State any significant assumptions that are made in designing the system;

(4) Identify any significant constraints which must be considered in designing, implementing, operating and maintaining the proposed system;

(5) Develop conceptual models/frameworks to guide and facilitate the process of designing, implementing, operating and maintaining the system;

(6) Identify the specific executive capabilities, qualities and qualifications that should be included in the system;

(7) For each factor included in the system, define an operational definition or measurement method/technology by which values will be assigned to the factor. If possible, stipulate an associated standard which indicates the desired level or value for the factor (in terms of its operational definition);

(8) For each factor included in the system, identify and associate with that factor the alternative resources and methods available to assist the officer in improving or developing (to the specified standard);

(9) Identify the specific responsibilities of each agency concerned with designing, implementing, administering and maintaining the proposed system;

(10) Determine the most appropriate medium through which to operationalize the proposed system (e.g., publications, interactive computer

program, etc.) and how it will be distributed or made available to Air Force officers;

(11)   Develop a prototype self-assessment and development package;

(12)   Field test the prototype package to validate its utility and effectiveness and to identify any unanticipated problems;

(13)   Revise the self-assessment and development package as required;

(14)   Distribute the revised package throughout the Air Force; and

(15)   Periodically and routinely review the system, including executive capability/effectiveness factors, operational definitions and standards, and development resources available, making any necessary changes.

The remaining sections in this chapter address in more depth and detail the first 11 steps in the proposed development process. It should be emphasized that no claim is made (or should be inferred) that the proposed process is definitive. It is meant to be illustrative of one systematic approach to designing, operationalizing, implementing, operating, administering and maintaining an effective and practical Air Force executive self-assessment and development system.

(RQ 3.2) What objectives, criteria, assumptions and constraints should be considered in designing, implementing and maintaining a comprehensive, effective and practical air force executive self-assessment and development system?

Objectives.

The initial step in the design phase of the process is to clearly specify the objective(s) the system should be structured and developed to achieve. As envisioned in this study, the purpose of the system should be to provide individual Air Force officers with a systematic, effective and convenient method for periodically/routinely assessing their own capabilities, qualities and qualifications to perform effectively in executive-level positions within the officer's functional specialty. The system should also provide individual officers with a systematic, effective and convenient method for developing/modifying a comprehensive personal executive development action plan, i.e., a plan that is realistic, meaningful and based directly on a valid self-assessment of the officer's capabilities and qualifications relative to the specific capabilities/qualifications actually (de facto) valued by the Air Force as required for effective performance in executive-level positions within the officer's functional specialty.

It should be emphasized here that the objective of the system is to support and facilitate executive self-assessment and development by the individual officer. This system should be designed to complement and operate

as an integral component of the Air Force's total officer professional development process.

Criteria.

Most of the criteria (and associated standards) that should be used to guide the design of the proposed executive self-assessment and development system were introduced in the analysis and assessment of the existing Air Force officer appraisal/assessment and professional development system presented in Chapter IV. These are reiterated here and augmented by additional criteria pertinent to a self-assessment and development system. The proposed system should:

(1)   Provide a clear, comprehensive and definitive statement of the specific executive skills, capabilities, qualities and qualifications which the Air Force values and believes are required for effective performance in executive-level positions within respective functional specialties, both now and in the future;

(2)   Establish for each capability/effectiveness factor included in the system one or more accepted operational definitions or measurement methodologies that will assign values to the factor with validity, reliability, precision and objectivity;

(3)   Associate with each factor and its related operational definition an explicitly-stated standard or desired value;

(4)   For each executive capability/effectiveness factor, identify those development resources and methods available to assist the individual officer in improving that particular competency or qualification;

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(5)   Clearly identify the responsibilities of each agency concerned with designing, operationalizing, implementing, operating/administering and maintaining the system (e.g., the individual officer, the officer's commander/ supervisor and chain of command, the Air Force Military Personnel Center, and HQ USAF);

(6)   Include a cybernetic mechanism to ensure that the executive capability/effectiveness factors (and/or their associated operational definitions and related standards) included in the system are regularly and automatically reviewed, revalidated and, if required, modified in anticipation of, or in response to, changing executive performance effectiveness requirements;

(7)   Include a cyberr't.c mechanism to ensure that the inventory of professional develoμment resources/methods associated with each factor is regularly reviewed and updated as required;

(8)   Be readily accessible to all officers;

(9)   Be convenient to use;

(10)   Be readily understood;

(11)   To the extent possible, employ self-scoring assessment instruments or other technologies to provide the officer with immediate feedback on the results of the self-assessment, i.e., feedback which provides the officer with a comprehensive "executive effectiveness profile" of respective and relative strengths and weaknesses;

(12)   Assist the officer in assessing the benefits, costs and risks associated with alternative executive development strategies in the process of building a personalized executive development action plan;

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(13) Be convenient and cost-effective to operationalize, implement, administer and maintain; and

(14) Complement and be an integral part of the Air Force's overall officer professional development program.

Assumptions.

The process of designing an Air Force executive self-assessment and development system should include a clear and explicit statement of any assumptions which significantly affect the design process. Relatedly, the rationale or evidence for that assumption should also be stated. For example (and only for example):

(1) Improving executive capabilities and effectiveness contributes directly and significantly to improving organizational effectiveness throughout the Air Force;

(2) Individual officers and the Air Force (as an institution) share the responsibility for developing the officer's executive capabilities and effectiveness. Individual officers have a major, if not the primary, responsibility for assessing and developing their own executive capabilities and effectiveness;

(3) The skills, competencies, personal and professional qualities, and other qualifications an officer needs to perform effectively in executive-level positions are not necessarily generic, i.e., they are not necessarily the same capabilities (etc.) required for effective performance at non-executive (typically, lower) levels in Air Force organizations;

(4) It is possible to identify those factors (i.e., capabilities, qualifications, personal qualities, professional qualifications, etc.) which

the Air Force (as an institution) values, and which it believes significantly affect an officer's performance effectiveness in executive-level positions within each of the Air Force's respective functional specialties;

(5)   For each executive effectiveness factor included in the system, it is possible to identify a valid, reliable, precise and objective operational definition, as well as an associated Air Force standard or desired value;

(6)   For each executive effectiveness factor included in the system, it is possible to identify at least one effective and practical method to help the officer improve or develop to the desired level; and

(7)   Given a valid, reliable, precise and objective assessment of their own executive capabilities and effectiveness, officers will generally be self-motivated to follow up by (consciously and formally or intuitively and informally) developing a personal executive development action plan.

Constraints.

In the process of designing an effective and practical Air Force executive self-assessment and development system, it is also important to clearly understand the resources available for, and constraints on, both the design process and the system itself. For example, such constraints might include:

(1)   The active support (or lack of support) and involvement of the Air Force's senior leadership for developing such a system;

(2)   The availability of personnel having the expertise necessary to develop the proposed system;

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(3) Funds available to design, operationalize, implement, administer and maintain the proposed system;

(4) The time available to design, operationalize and implement the proposed system;

(5) The availability of (valid, reliable, precise, objective, convenient-to-use, and readily-understood) assessment instruments and methods for each of the executive effectiveness factors to be included in the system; and

(6) The availability of effective and practical methods for officers to use in developing or improving the respective executive effectiveness factors included in the system.

<u>(RQ 3.3) What conceptual odels or frameworks can be used to structure and</u> <u>facilitate the process c designing, implementing and maintaining a</u> <u>comprehensive, effective and practical air force executive self-assessment</u> <u>and development system?</u>

A very useful step in the process of acquiring an executive self-assessment and development system for the Air Force is the creation of one or more conceptual models designed to promote better understanding of the system acquisition process and of the system to be acquired. This section suggests three such conceptual models.

The simplest, lowest-resolution model is illustrated in Figure 5-1. It depicts the system acquisition process in very general terms and reflects the process described in the first section of this chapter. This model is generally self-explanatory. Perhaps the most significant aspect of the model is the cybernetic notion of continuing, periodic/automatic review and redesign/modification to ensure the system remains valid and responsive to the evolving nature of Air Force executive effectiveness and development requirements.

A somewhat more complex and higher level-of-resolution conceptual model is illustrated in Figure 5-2. This influence diagram attempts to identify the various factors affecting the effectiveness of the proposed Air Force executive self-assessment and development system. It also illustrates the nature of the relationships between the factors and the effectiveness of the system. This model employs the same labeling convention introduced in the

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```
         ┌──────────────┐        -   Objectives
   ┌─────▷│    DESIGN    │        -   Criteria
   │      └──────┬───────┘        -   Assumptions
   │             │                -   Constraints & Resources
   │             ▽                -   Conceptual model(s)
   │      ┌──────────────┐        -   Identify Factors
   │      │   DEVELOP     │        -   Specify Operational
   │      └──────┬───────┘              Definitions and
   │             │                      Standards
   │             │                -   Identify Appropriate
   │             │                      Development Methods
   │             │                      and Resources
   │             │                -   Develop Prototype System
   │             │                -   Field Test the System
   │             ▽                -   Finalize the System
   │      ┌──────────────┐
   │      │  IMPLEMENT   │        -   Produce the System
   │      └──────┬───────┘        -   Distribute the System
   │             │
   │             ▽
   │      ┌──────────────┐
   │      │  ADMINISTER  │        -   Periodically Review
   └──────│     AND      │              and Revalidate
          │  MAINTAIN    │
          └──────────────┘
```

Figure 5-1:   The System Acquisition Process

ENVIRONMENTAL FACTORS (+/-)

SUPPORT OF SENIOR   (+)
AIR FORCE LEADERSHIP

RESOURCES AVAILABLE (+)

CONSTRAINTS (-)

ASSUMPTIONS (+/-)

SPECIFICATION OF VALID (+)
EXECUTIVE EFFECTIVENESS
FACTORS

EFFECTIVENESS OF
THE SELF-ASSESSMENT
AND DEVELOPMENT
SYSTEM

IDENTIFICATION OF VALID, (+)
RELIABLE, PRECISE, OBJECTIVE
AND CONVENIENT OPERATIONAL
DEFINITIONS AND STANDARDS

IDENTIFICATION OF APPROPRIATE (+)
EXECUTIVE DEVELOPMENT METHODS
AND RESOURCES

CONVENIENCE (+)

PERCEIVED UTILITY (+)
OF THE SYSTEM

SYSTEM OPERABILITY (+)
AND MAINTAINABILITY

RESPONSIVENESS TO CHANGED (+)
EXECUTIVE EFFECTIVENESS
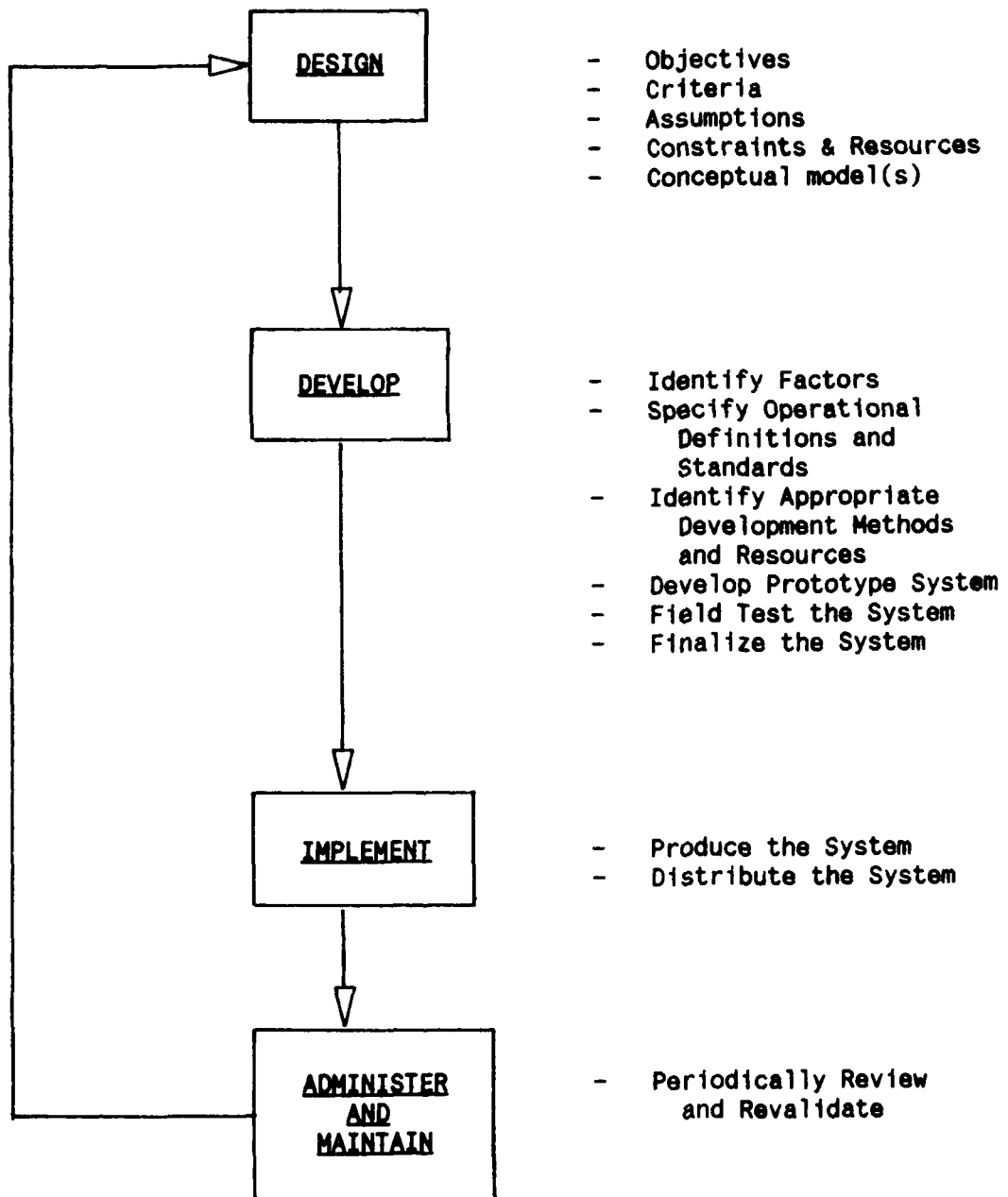REQUIREMENTS/FACTORS

Figure 5-2:   Factors Affecting Effectiveness of the Executive
Self-Assessment and Development System

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third chapter of this study, i.e., "(+)" implies a direct relationship, "(-)" signifies an inverse relationship, and "(+/-)" indicates the relationship could be either direct or inverse. The factors included in the model presented in Figure 5-2 essentially summarize the discussion of criteria, assumptions and constraints presented in the previous section of the chapter.

The third conceptual model is illustrated in Figure 5-3. It is a typical high-resolution cybernetic system model of the process by which each executive effectiveness factor is systematically defined, measured, compared with the specified standard and changed, if required, to meet/exceed the specified standard. Referring to the figure, each factor or variable of interest has associated with it a number of system components, i.e., a system manager or decision unit, a comparator, sensors and actuators. The sensor is simply a measurement device or process capable of determining the current value of the factor/variable. The data acquired (measured) by the sensor is fed back to a comparator component/function which compares the current value of the factor to a specified standard. That ratio/relative information is, in turn, fed back to a decision unit or system manager function. Depending on the nature of the decision unit, several alternative responses are possible. If the value of the factor currently meets or exceeds the specified standard, the decision unit can elect to take no action or it can elect to raise the standard, according to an internal policy or decision criterion.
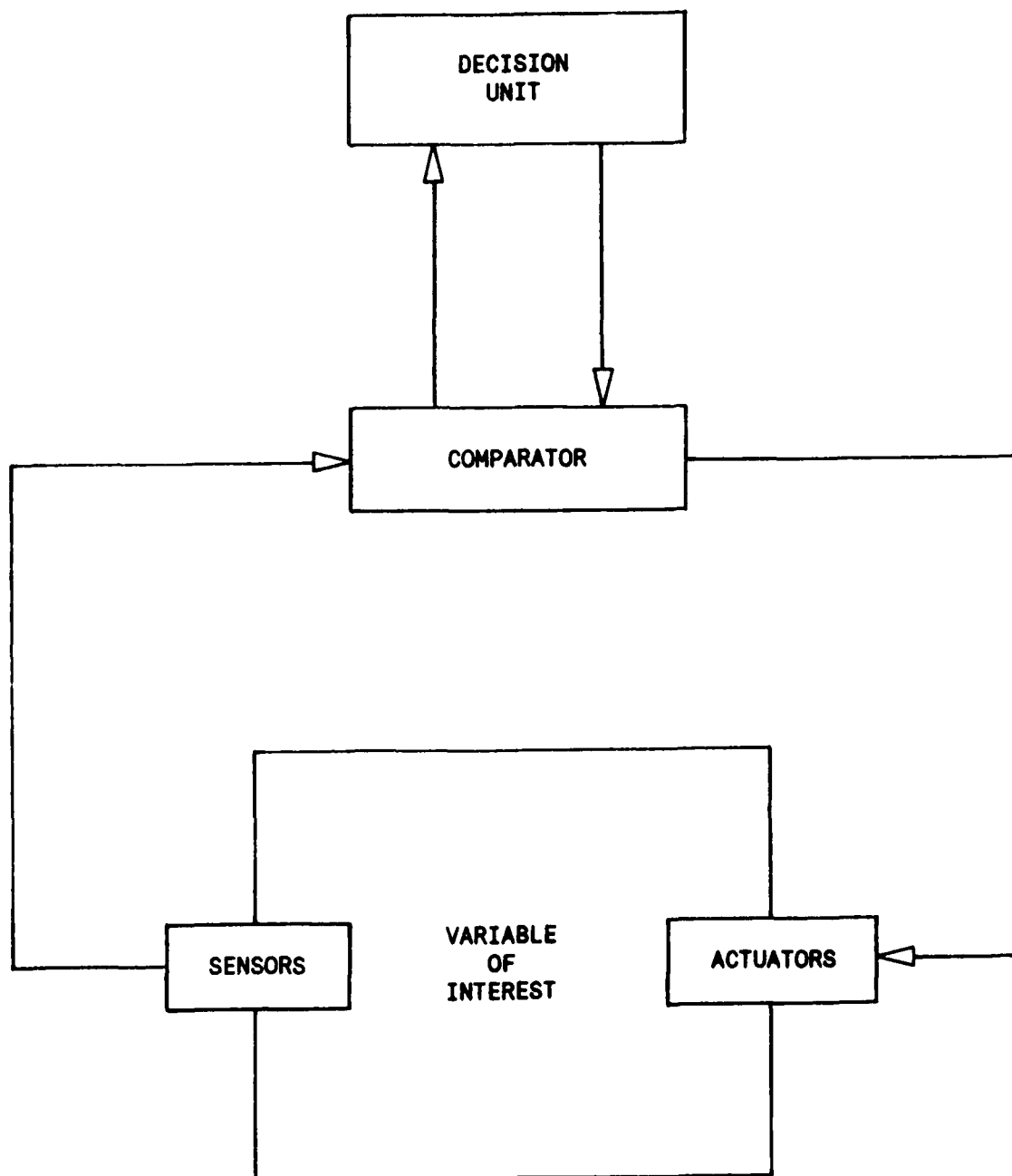
Figure 5-3: Basic Cybernetic System Model

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Alternatively, if the current value of the factor does not meet the specified standard, again several decision options are available. The decision unit can lower the standard and do nothing or it can energize one or more available actuators. The decision unit can also, at any point, determine that the factor is no longer significant and not worth controlling. In the parlance of cybernetics, an actuator is simply a device, technology or process that is capable of inducing a desired change (increase or decrease) in the factor being controlled or regulated. It should be apparent that, in the absence of effective actuators, the decision unit can do nothing to affect the level of the factor and the decision unit then becomes relegated to a system monitor, rather than a system regulator/controller, and the factor is effectively out of control.

A simple example will perhaps help to illustrate the applicability of this model to the notion of executive self-assessment and development. Referring to Figure 5-4, the factor of interest is a particular officer's health or fitness. The sensors by which the officer elects to measure his/her own fitness might include a number of operational definitions, (e.g.) weight, percentage of body fat, blood pressure, cholesterol level and maximum oxygen uptake level. Each of these operational definitions can be readily measured by a standard, conveniently available method. Associated with each of these operational definitions are specified Air Force standards or desirable levels (which typically vary according to the officer's sex and age). In the context of the basic cybernetic system model, the officer accomplishes both the comparator and decision unit functions. The officer interprets the ratio values determined by comparing the current level of

his/her health (as measured by the respective operational definitions) with the associated standards and determines if the ratio is acceptable or if some action needs to be taken. For purposes of the example, assume that the officer's weight exceeds the Air Force standard. The officer can elect to take no action and accept the consequences, e.g., adverse administrative action. Alternatively, the officer can also elect to take corrective action through one of a number of available "actuators," e.g., changing diet or increasing exercise. Similar conceptual cybernetic models could be developed for each factor to be included in the proposed system.
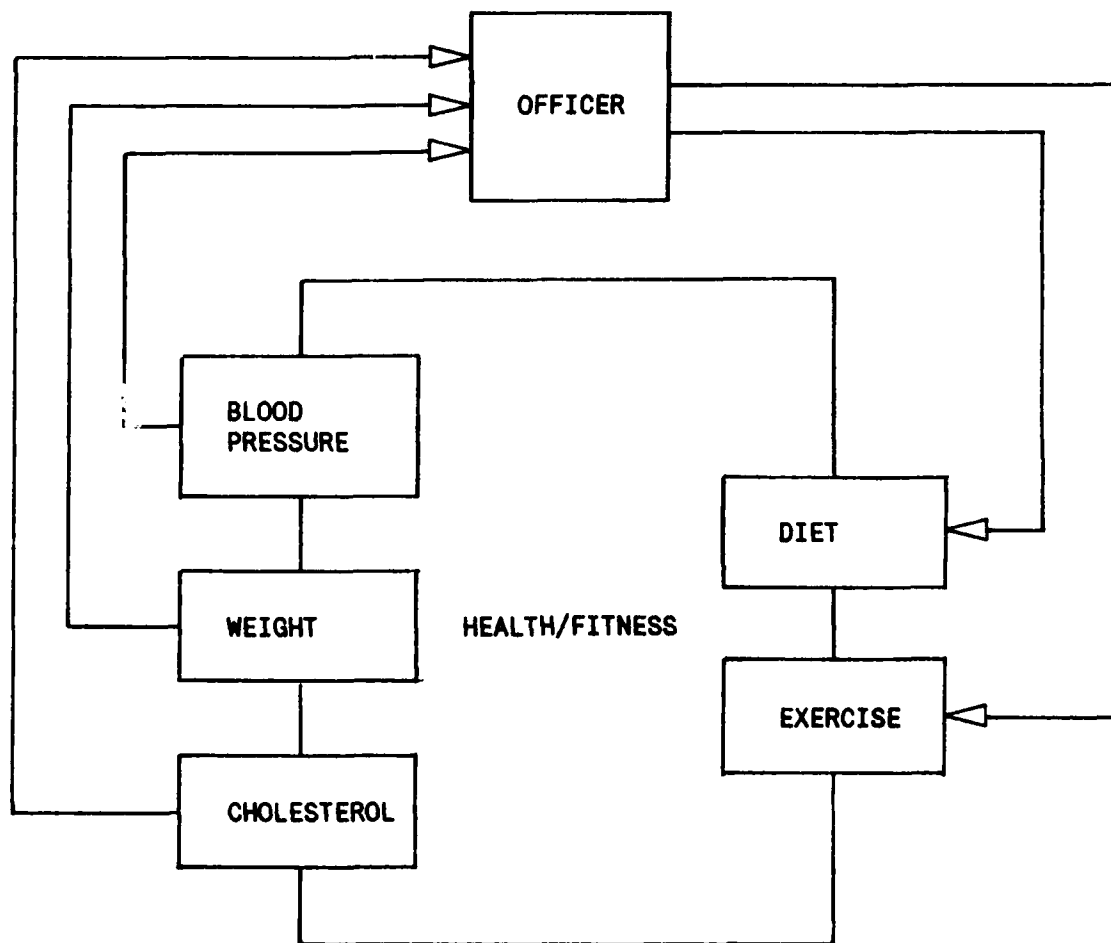
Figure 5-4: Cybernetic Model of Executive Health

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(RQ 3.4)   What executive capability/effectiveness factors should be included in the proposed air force executive self-assessment and development system?

In general terms, this question was examined in Chapter III and, in particular, it was directly addressed in the response to research question RQ 1.7. The general conceptual model described in that section comprised three primary subsets of executive effectiveness factors:

(1)   Professional Military Effectiveness Factors;

(2)   General Management Effectiveness Factors; and

(3)   Functional/Technical Effectiveness Factors.

The fact that the general model includes a specific functional/technical component indicates that executive effectiveness factors are not entirely generic or universal. Consequently, a comprehensive Air Force executive self-assessment and development system would include a separate profile of executive effectiveness factors for each of the 39 different Air Force functional (career) specialties described in Part II of AFR 36-23.

Developing each of these separate profiles is beyond the scope of this study, as is the in-depth development of even one such profile. However, for purposes of illustration, the procedure for developing a "typical" profile of executive effectiveness factors will be illustrated in this section. The Civil Engineering functional specialty (Air Force Specialty Code 55XX) is the basis for this illustration. The framework for the profile development procedure is the general, research-based conceptual model developed in Chapter III.

Professional Military Effectiveness Factors.

Like all other Air Force officers, Civil Engineering officers in, or preparing for, executive positions, must be effective in their military profession. This means these officers must exhibit those military skills and qualities which the Air Force values in its senior officers, apart from their roles as managers and functional experts. The general conceptual model developed in Chapter III suggests these factors include:

(1) Civil Engineering senior officers should exhibit and promote the following professional military qualities and values:

(a) Competitiveness

(b) Loyalty

(c) Discipline

(d) Dedication

(e) Dependability

(f) Consistency

(g) Physical and moral courage

(h) Integrity and honesty; trustworthiness

(i) Concern for the welfare of subordinates

(j) Fairness and objectivity in dealing with subordinates

(k) Air Force standards, customs and courtesies

(l) Acceptance of responsibility

(m) Professional ethics

(n) Appearance and bearing

(o) Positive attitude

(p) Self-confidence

(q) Selflessness;

(2)   An operational rating (as a pilot or navigator) is generally desirable for all Air Force officers because of the nature of the weapon systems normally employed by the Air Force. However, in general, Civil Engineering officers are not rated. The practical significance of this is that Civil Engineering officers have not been promoted to executive levels above the grade of major general;

(3)   Civil Engineering senior officers are expected to be effective as commanders. Ideally, this would include command experience at both the squadron and group level. There are also an extremely limited number of opportunities to command at the wing level. However, this opportunity is so limited that it is not practically significant to most Civil Engineering senior officers. In addition to having experience and expertise in commanding at different levels of responsibility, the Civil Engineering should also (ideally) have experience in commanding units supporting a variety of aerospace missions (i.e., in different major commands), both in the United States and in overseas theaters. Another desirable factor is the opportunity to command a joint and/or combined combat engineering force;

(4)   The military effectiveness of Civil Engineering senior officers, like other Air Force senior officers, is affected by the individual's ability to understand, analyze, develop and apply aerospace, joint and combined doctrine, strategy and tactics. Civil Engineering officers also need to be able to effectively assess the hostile threat to their ability to provide the facilities, pavements and systems required to sustain mission operations. In addition, however, Civil Engineering senior officers need to be especially competent in the areas of military logistics and combat support doctrine, strategy and tactics;

(5)   Senior Civil Engineering officers need to have a sound understanding of military history, in general. Additionally, these officers also need to have an understanding of the role engineers have played in military operations throughout history and, in particular, their historical role in supporting aerospace operations;

(6)   Senior Civil Engineering officers must also have a general understanding of factors affecting the development, application and employment of military force packages to achieve military and political objectives and how these factors are related to the use of other instruments of national power, e.g., economics and diplomacy;

(7)   To be effective, Senior Air Force Civil Engineering officers must have a sound understanding of national security policy and how that policy is developed and implemented; and

(8)   Finally, senior Civil Engineering officers need to understand the organization and command and control of Air Force, joint and combined military systems and operations.

General Leadership and Management Effectiveness Factors.

Senior Civil Engineering officers, like Air Force officers in other executive positions, must be effective in leading and managing large, complex organizations. The general conceptual model developed in Chapter III suggested the following factors were significant to executive effectiveness:

(1)   First, Civil Engineering executives need to possess a general aptitude for leadership and management;

(2)   They need to possess the following intellectual competencies:

(a)   Intelligence;

(b)   Curiosity/inquisitiveness; and

(c)   Creativity;

(3)   They should possess the sound health and physical fitness, as well as a high energy level;

(4)   Senior Civil Engineering officers should (ideally) possess the following basic personality traits or qualities:

(a)   Relatively high needs for achievement, power, recognition, affiliation and competency;

(b)   A balance between extrovertedness and introvertedness;

(c)   A positive self-image;

(d)   A sense of humor; and

(e)   A thorough understanding of self, i.e., personality strengths and weaknesses.

(5)   Senior Civil Engineering officers in executive positions must be highly-effective leaders. In particular they must:

(a)   Have a strong self-perception as a leader;

(b)   Set challenging, but achievable goals for individuals and groups within their organizations;

(c)   Set high standards and consistently enforce them;

(d)   Effectively motivate subordinates, both individually and in group activities;

(e)   Work well with others;

(f)   Be sensitive to the needs/values of superiors, peers and subordinates;

(g)   Be sensitive to differences in social and cultural values;

(h)   Foster and promote teamwork;

(i)   Display and promote initiative;

(j)   Have the respect and confidence of subordinates;

(k)   Be fair and consistent in evaluating subordinates;

(1)   Be effective at conflict management and negotiation;

(m)   Be effective at recognizing/rewarding and sanctioning or punishing subordinates;

(n)   Clearly understand organizational culture and values; and

(o)   Be effective at creating the desired organizational climate.

(6)   Civil Engineering officers in executive positions need to have a thorough understanding of the economic, financial, political, regulatory, technological, social-cultural and competitive environments affecting the organizations they lead and manage and the nature of national and international external dependencies affecting the organization.

(7)   To be effective in executive positions, Civil Engineering officers must have demonstrated success and effectiveness in leading and managing at lower levels in civil engineering organizations.

(8)   Civil Engineers in executive positions must be effective planners. Specifically, they must demonstrate:

(a)   The ability to create a strategic vision for the organization that is compatible with the organization's changing environment;

(b)   Effectiveness at setting organizational goals and objectives;

(c)   Effectiveness at establishing appropriate priorities;

(d)   Effectiveness at strategic planning; and

(e)   Effectiveness at policy analysis and formulation.

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(9)   Civil Engineering officers in executive positions must also be effective resource managers. In that regard, the must demonstrate:

(a)   Effectiveness at determining and acquiring required personnel, financial, material, equipment, communication, information, data processing, facilities, and other resources;

(b)   Effectiveness at allocating limited available resources to competing priorities;

(c)   Effectiveness at managing one's own time;

(d)   Effectiveness at consistently delivering high-quality results on time and within budget;

(e)   Effectiveness at acquiring and using power; and

(f)   Tenacity and follow-through.

(10)   Civil Engineering officers in executive positions must effectively solve complex, difficult problems; exercise sound judgment and must be an effective decision maker. This requires the ability to:

(a)   Think conceptually and strategically;

(b)   Synthesize, integrate and simplify;

(c)   Systematically, rigorously and logically analyze complex problems;

(d)   Effectively deal with complexity;

(e)   Effectively make decisions under conditions of uncertainty, ambiguity and risk;

(f)   Make timely and accurate decisions;

(g)   Recognize opportunities and act decisively to take advantage of them;

(h)   Exhibit creativity, resourcefulness, imagination and innovation in solving routine and nonroutine problems;

(i)   Act decisively in familiar and unfamiliar situations; and

(j)   Systematically assess organizational effectiveness and efficiency.

(11)   Air Force Civil Engineering executives must be able to demonstrate strong organizational competencies. In particular, they should demonstrate:

(a)   The ability to conceptualize of organizations as systems and understand organizational interdependencies;

(b)   Understanding of organizational functions and processes; and

(c)   The ability to delegate effectively.

(12)   Civil Engineering officers in executive positions must be effective communicators. This includes the ability to listen, speak and write effectively. It also includes the ability to work effectively with the media and public;

(13)   Senior Civil Engineering officers must be able to effectively evaluate and develop subordinates;

(14)   Civil Engineering executives must have the ability to manage information effectively. This includes having an understanding of, and facility with, computer systems and products;

(15)   Senior Civil Engineering officers must be emotionally stable and have the ability to effectively manages stress;

(16)   Civil Engineering officers in executive positions must have the ability to deal with, and effectively manage, (significant and rapid) change;

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(17) Civil Engineering executives must have the ability to effectively balance personal life and work;

(18) Civil Engineering executives must have the ability to effectively make strategic transitions;

(19) Senior Civil Engineering officers must have the ability to think and act independently; and

(20) Civil Engineering executives must be satisfied with job and career.

Functional/Technical Effectiveness Factors.

Where professional military and general management effectiveness factors are, to varying degrees, applicable to all Air Force executives, functional/technical effectiveness factors are unique to the Air Force's 39 different functional/career specialties. Figure 5-5 presents an influence diagram, derived from the general conceptual model developed in Chapter III, that illustrates those factors affecting the technical or functional effectiveness component of executive effectiveness.

It is also important to note that current Air Force policy for officer professional development emphasizes the acquisition of in-depth functional expertise during the initial phase of development (i.e., in the company grade ranks), followed by a broadening of expertise and experience in the latter phases of development. Officer professional development moves from an emphasis on functional specialization to an emphasis on functional and multi-functional generalization.(009:8) This relationship is shown conceptually in Figure 5-6.

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FUNCTIONAL (+)
KNOWLEDGE

- Depth of Knowledge

- Breadth of Knowledge

FUNCTIONAL (+)
EXPERTISE

FUNCTIONAL (+)
EXPERIENCE

- Depth of Experience

- Breadth of Experience

FUNCTIONAL
EFFECTIVENESS

ABILITY (+)
TO APPLY
FUNCTIONAL
EXPERTISE
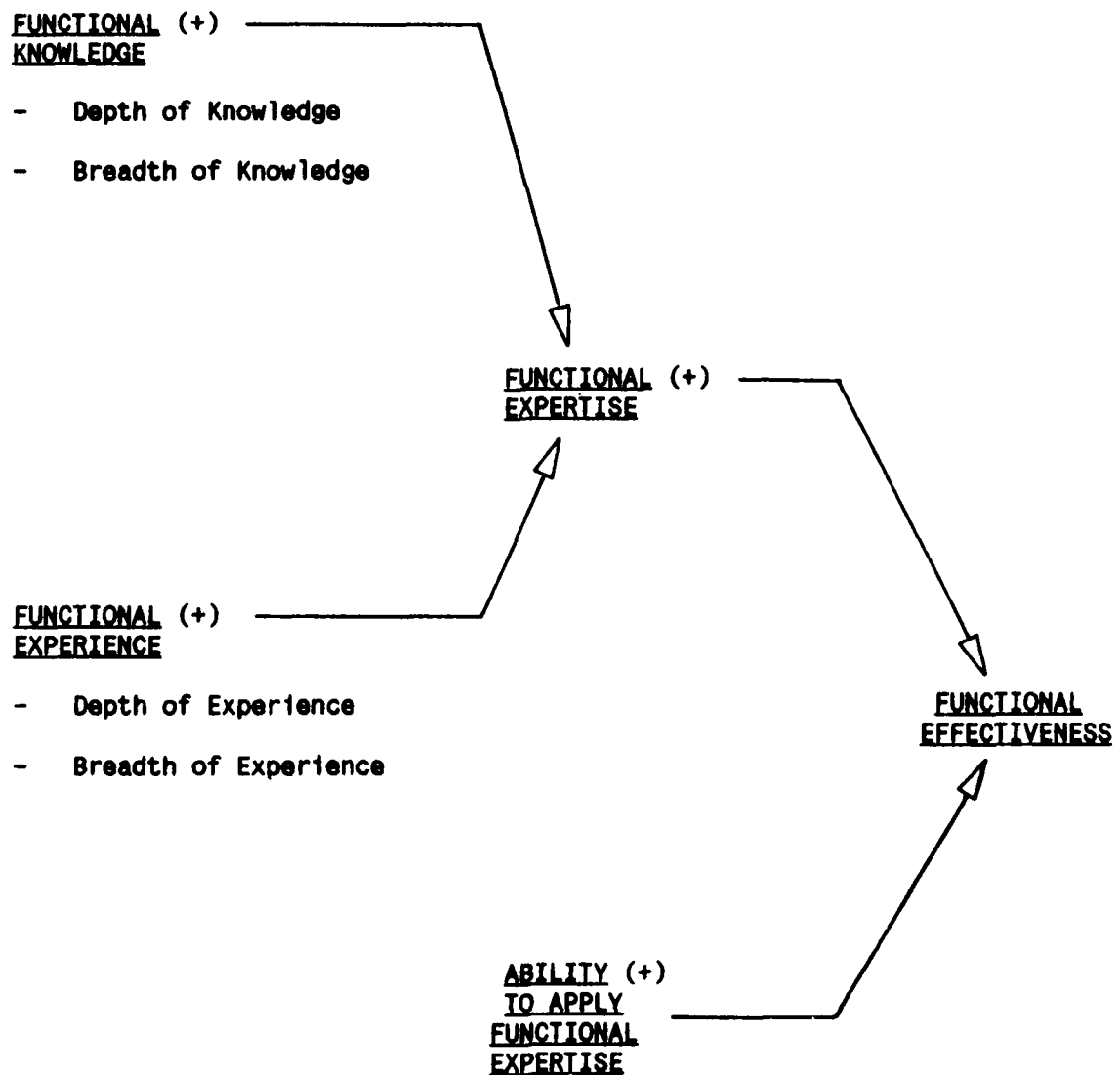
Figure 5-5: Factors Affecting Functional (Technical) Effectiveness

PROFESSIONAL
DEVELOPMENT
EMPHASIS

FUNCTIONAL AND
MULTI-FUNCTIONAL
GENERALIZATION

FUNCTIONAL
SPECIALIZATION

YEARS
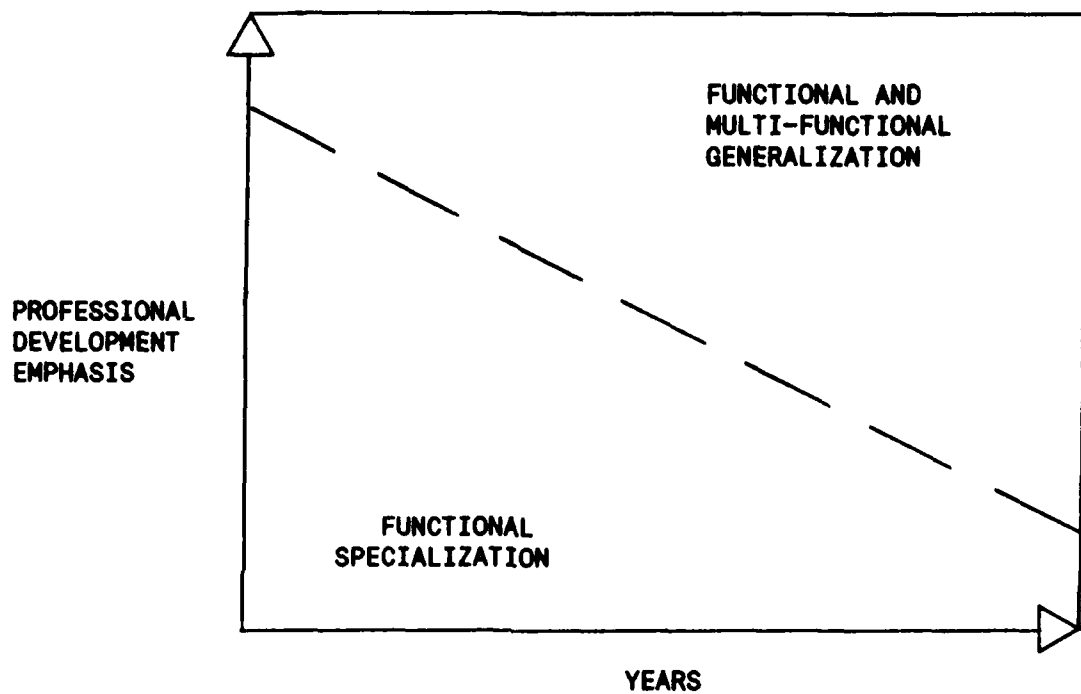
Figure 5-6: Officer Professional Development Policy

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In the context of this general Air Force officer professional development policy, Civil Engineering officers preparing for executive positions must acquire a balance of depth and breadth in expertise pertaining to the functional specialty. More specifically, to be effective, Civil Engineering executives must be competent in the following functional elements:

(1)   Combat engineering;

(2)   Requirements analysis;

(3)   Master planning and community development;

(4)   Environmental protection;

(5)   Programming;

(6)   Financial management;

(7)   Real property management;

(8)   Real estate acquisition/disposal;

(9)   Architectural and engineering design (In-house and by contract);

(10)   Construction management;

(11)   Contract administration;

(12)   Industrial engineering and information management;

(13)   Operations and maintenance, including:

   (a)   Pavements and grounds;

   (b)   Structural systems;

   (c)   Mechanical systems; and

   (d)   Electrical systems;

(14)   Fire protection and crash rescue;

(15)   Family housing management;

(16)   Supply/equipment acquisition;

(17)   Vehicle acquisition/management;

(18)   Communication systems acquisition/management; and

(19)   Civilian and military personnel administration.

In addition to being fully competent in the specified functional elements, Civil Engineering executives should also broaden their expertise by a variety of assignments including (to the extent possible):

(1)   Several different major commands having disparate mission support requirements;

(2)   Base/squadron, major command staff, HQ USAF and joint/combined staff experience;

(3)   Squadron commander experience;

(4)   Overseas experience (including a remote/isolated tour);

(5)   Experience with the spectrum of basing modes, i.e., expedient airfield, bare base, standby base, limited base and main base; and

(6)   A career-broadening assignment, e.g., ROTC or AFIT instructor.

(RQ 3.5)   What operational definitions and measurement technologies should be used to assign values to the capability/effectiveness factors incorporated in the proposed air force executive self-assessment and development system?

Perhaps the most difficult challenge of developing a comprehensive Air Force executive self-assessment and development system (for even one functional specialty, e.g., Civil Engineering) is the identification and specification of a valid, reliable, objective, precise and convenient operational definition for each factor included in the system. Equally challenging to the problem of measuring or assigning values to the executive effectiveness factors is the requirement to define a standard or desired level for each factor.

These associated assessment tasks of measurement and establishing meaningful standards vary in difficulty, depending on the nature of the factor. For example, the factor "squadron commander experience" is readily measured by examining he officer's service record. The officer has either been a squadron commander or hasn't. The standard in this case is also straightforward, i.e., to be fully qualified for an executive-level position, the officer should have had experience as a squadron commander. Obviously, this type of categorical variable does not address the quality of the officer's experience as a squadron commander. By simply modifying the factor to be "success as a squadron commander," the factor becomes both more meaningful and more difficult to assess, i.e., to measure and compare against a specified standard. The assessment problem becomes especially difficult

for value-ladened, abstract constructs such as (e.g.) the professional military qualities of integrity, courage, loyalty and the like.

Literally hundreds of assessment instruments have been developed to measure potentially significant executive effectiveness factors. This is especially true for the general leadership and managerial factors. These instruments vary widely in their characteristics, e.g.:

(1) Their relation to, and empirical derivation from, an underlying theory;

(2) Robustness, or the degree to which the results of the instrument can be generalized with validity. For example, some instruments are valid over a wide range of situations, while others have only a relatively narrow domain in which they can be applied (with validity);

(3) Psychometric properties, e.g.:

    (a) Validity;

    (b) Reliability;

    (c) Precision or accuracy; and

    (d) Objectivity.

(4) Convenience, i.e., the ease with which the instrument can be administered, scored and interpreted. In this regard, some instruments can be self-administered, and/or scored, and/or interpreted. Six combinations are possible, as indicated in Figure 5-7. For a self-assessment and development system, it is obviously desirable to use instruments which can be self-administered, self-scored and self-interpreted.

(5) The degree to which the instrument is readily understood and the resulting data can be interpreted;

	Administered By:	Scored By:	Interpreted By:
Self			
Others			

Figure 5-7:   Measurement Instrument Types

(6)   Cost. Some instruments are in the public domain and available free of cost, while others involve costs for use, scoring and/or interpretation. In some cases, use/scoring/interpretation of the instrument requires specialized training, training which may also involve additional expense.

(7)   Respondents. Some instruments are completed directly by the subject (or on the subject by an instrument administrator). By contrast, other instruments are designed to be completed only by the subject's coworkers, e.g., supervisor, peers and subordinates. Still others are designed to be completed by both the subject and his/her coworkers.

A comprehensive review of potentially useful assessment instruments is beyond the scope of this study. However, the abstracts of a small sample of available instruments are included in Appendix E simply to illustrate some of the different types of assessment instruments currently in use. The following discussion briefly addresses the issues to be considered in specifying operational definitions and associated standards for each of the factors that were identified in the previous section for inclusion in a proposed Air Force Civil Engineering executive self-assessment and development system.

Professional Military Effectiveness Factors.

(1)   Professional Military Qualities and Values. As was previously suggested, assessment of these factors is especially difficult because many of them are abstract, imply subjective value judgments, and lack well-defined Air Force standards. Others, e.g., "compliance with Air Force standards, customs and courtesies" and "appearance and bearing" are more readily

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observable and comparable to well-defined standards. For some of these factors, e.g., competitiveness, concern for subordinates, acceptance of responsibility, positive attitude, and self-confidence, assessment instruments are available (while institutionalized Air Force standards are not and would need to be developed). For other factors, neither the instrument nor the standard is available and would have to be developed.

At the very least, an instrument could be developed which would allow officers to subjectively rate themselves on each of the suggested professional military qualities using (e.g.) a five-point or seven-point interval scale. A better assessment method would involve having both the officer _and_ a representative sample of coworkers (e.g., supervisors, peers and subordinates) complete such an instrument. The coworkers would complete and return the instrument _anonymously, allowing the subject_ to compare his/her own self-perception with the perception of coworkers. To provide at least a _relative_ standard, respondents would be asked to compare the subject to other officers in executive positions which the respondent has known or observed. The general structure of such an instrument is illustrated in Figure 5-8. Of course, as noted in the process prescribed for developing an Air Force executive self-assessment and development system, such an instrument should be field tested and modified (e.g., to include different or additional qualities/factors), as required, before being finalized.

(2) Aeronautical Rating. This factor can be readily measured by referring to the officer's service record. For Civil Engineering officers, an aeronautical rating is desirable, but not required.

<u>OFFICER:</u>   Lt Col John Doe

<u>PURPOSE:</u>   This instrument is intended to assist the above-named officer develop professionally by providing <u>anonymous</u> feedback on how he/she is perceived by coworkers relative to a number of important professional military qualities.

<u>INSTRUCTIONS:</u>   You have been randomly identified to participate in this professional development effort. Participation is totally voluntary. The subject officer is unaware of (and cannot determine) who participated in this survey. For each of the following scales, please rate the officer by comparing him/her with that senior officer (i.e., colonel or general) you have known or observed <u>who BEST exemplified that particular quality</u>. Please use the following scale for rating the officer on each factor:

Compared to the BEST senior officer I have observed, this officer is:

1	Much lower/worse
2	Definitely lower/worse
3	Somewhat lower/worse
4	About equal
5	Somewhat higher/better
6	Definitely higher/better
7	Much higher/better

<u>Circle Your Rating</u>

COMPETITIVENESS	1	2	3	4	5	6	7
LOYALTY	1	2	3	4	5	6	7
DISCIPLINE	1	2	3	4	5	6	7
DEDICATION	1	2	3	4	5	6	7
DEPENDABILITY	1	2	3	4	5	6	7
CONSISTENCY	1	2	3	4	5	6	7
PHYSICAL COURAGE	1	2	3	4	5	6	7

Figure 5-8:   Instrument for Assessing Professional Military Qualities
(continued on following page)

Compared to the BEST senior officer I have observed, this officer is:

1   Much lower/worse
2   Definitely lower/worse
3   Somewhat lower/worse
4   About equal
5   Somewhat higher/better
6   Definitely higher/better
7   Much higher/better

<u>Circle Your Rating</u>

MORALE COURAGE	1	2	3	4	5	6	7
INTEGRITY	1	2	3	4	5	6	7
TRUSTWORTHINESS	1	2	3	4	5	6	7
CONCERN FOR THE WELFARE OF SUBORDINATES	1	2	3	4	5	6	7
FAIRNESS AND OBJECTIVITY IN DEALING WITH OTHERS	1	2	3	4	5	6	7
CONCERN FOR MISSION ACCOMPLISHMENT	1	2	3	4	5	6	7
DEMONSTRATES AIR FORCE STANDARDS, CUSTOMS AND COURTESIES	1	2	3	4	5	6	7
ETHICAL BEHAVIOR	1	2	3	4	5	6	7
POSITIVE ATTITUDE	1	2	3	4	5	6	7
SELF-CONFIDENCE	1	2	3	4	5	6	7
SELFLESSNESS	1	2	3	4	5	6	7

Figure 5-8: Instrument for Assessing Professional Military Qualities

(3)   Command Experience. Again, this effectiveness factor is readily measured by examining service records. This factor can be measured either categorically or in terms of years of experience. To be effective in an executive level position, Civil Engineering officers should have had at least one assignment as a squadron commander (normally, a three-year assignment). Ideally, the officer should also have experience as a civil engineering group commander or another squadron commander assignment. Multi-command experience is also desirable. If the officer does not have the opportunity to command a civil engineering squadron/group in more than one major command, an assignment as a division chief on a major command staff (i.e., a major command which is different from the command in which the officer commanded a unit) is desirable.

(4)   Competence in Military Arts and Sciences. Several alternatives are available to assess the Civil Engineering officer's understanding of, and ability to apply, basic military arts and sciences, in service, joint or combined operations, and across the entire spectrum of conflict. This would include:

(a) Aerospace and combat support doctrine/strategy/tactics;

(b) The lessons of military (especially Air Force) history;

(c) Military/aerospace force development and employment;

(d) National security policy and the use of the military instrument in conjunction with other national instruments of power; and

(e) Concepts of military organization, command and control. Completion of an appropriate senior service school (e.g., the Air War College or Industrial College of the Armed Forces) is the currently accepted operational definition and standard (i.e., the course is the operational

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definition and satisfactory completion of the course is the standard). The
senior service school also constitutes one resource or method for developing
these competencies.

Ignoring for the moment the real-world "square-filling" utility of
completing senior service school for promotion competitiveness, another
approach is also possible. A comprehensive examination could be developed
and made available to the officer. The examination would be self-
administered and self-scored. If the officer failed to achieve a specified
passing grade (e.g., 70 percent), or if he was interested in improving his
competency in military doctrine, strategy and tactics, he/she could, for
example, enroll in an appropriate senior service school or, pursue an
independent reading program. As yet another alternative, the examination
could be administered and scored by others under controlled conditions. If
the officer achieves a passing grade, he is certified as being competent in
these essential military skills by the Air Force and completion of a senior
service school would not be required for the officer to remain competitive
for promotion to executive positions. Such a test would, in effect, be a
comprehensive final exam for the service schools. This approach emphasizes
competency on the subject matter, not _how_ that subject matter was mastered.

General Leadership and Management Effectiveness Factors.

The research conducted for this study suggests that, in general,
a number of measurement instruments have been developed which address,
directly or indirectly, each general leadership/management effectiveness
factor identified in the previous section of this chapter (and in the general

conceptual model developed in Chapter III). The brief sample of instruments included in Appendix E provides a general idea of the type and variety of methods and instruments which could be incorporated directly, or with modification, into an Air Force executive self-assessment and development system.

In addition to these existing operational definitions (and their associated standards), it is also possible to develop an instrument to assess general leadership and management effectiveness in the same manner as was suggested for assessing professional military qualities (i.e., in Figure 5-8). Such an instrument is illustrated in Figure 5-9. Again. this instrument would be completed by both the individual officer and (anonymously) by a representative sample of the officer's coworkers (i.e., supervisor, peers and subordinates). The coworker data would be fed back to the officer so that he/she could compare the coworker perceptions with the officer's own self-perception.

Functional/Technical Effectiveness Factors.

The nature of the operational definitions and standards included in the functional portion of the executive self-assessment and development system will depend significantly on the particular effectiveness factors associated with the functional specialty. For example, in the rated functional specialties, airmanship may be measured by operational definitions such as aeronautical ratings held, number of hours flown in particular types of aircraft, and so forth.

OFFICER: Lt Col John Doe

PURPOSE: This instrument is intended to assist the above-named officer develop professionally by providing anonymous feedback on how he/she is perceived by coworkers relative to a number of important executive leadership and management effectiveness factors.

INSTRUCTIONS: You have been randomly identified to participate in this professional development effort. Participation is totally voluntary. The subject officer is unaware of (and cannot determine) who participated in this survey. For each of the following scales, please rate the officer by comparing him/her with that senior officer (i.e., colonel or general) you have known or observed who BEST exemplified that particular quality. Please use the following scale for rating the officer on each factor:

Compared to the BEST senior officer I have observed, this officer is:

        1   Much lower/worse
        2   Definitely lower/worse
        3   Somewhat lower/worse
        4   About equal
        5   Somewhat higher/better
        6   Definitely higher/better
        7   Much higher/better

                                          Circle Your Rating

APTITUDE FOR LEADERSHIP   1   2   3   4   5   6   7
AND MANAGEMENT

INTELLIGENCE   1   2   3   4   5   6   7

CURIOSITY/INQUISITIVENESS   1   2   3   4   5   6   7

CREATIVITY/INNOVATIVENESS   1   2   3   4   5   6   7

PHYSICAL FITNESS/HEALTH   1   2   3   4   5   6   7

ENERGY LEVEL AND   1   2   3   4   5   6   7
AGGRESSIVENESS

Figure 5-9:   Instrument for Assessing Executive Leadership
              and Management Effectiveness (continued on next page)

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Compared to the BEST senior officer I have observed, this officer is:

1	Much lower/worse
2	Definitely lower/worse
3	Somewhat lower/worse
4	About equal
5	Somewhat higher/better
6	Definitely higher/better
7	Much higher/better

Circle Your Rating

NEED FOR POWER	1	2	3	4	5	6	7
NEED FOR ACHIEVEMENT	1	2	3	4	5	6	7
NEED FOR AFFILIATION	1	2	3	4	5	6	7
NEED FOR RECOGNITION	1	2	3	4	5	6	7
EXTROVERTEDNESS	1	2	3	4	5	6	7
POSITIVE SELF-IMAGE	1	2	3	4	5	6	7
SENSE OF HUMOR	1	2	3	4	5	6	7
UNDERSTANDING OF SELF (PERSONAL STRENGTHS AND WEAKNESSES)	1	2	3	4	5	6	7
EFFECTIVENESS AS A LEADER	1	2	3	4	5	6	7
SETS CLEAR, CHALLENGING AND ACHIEVABLE GOALS FOR SELF AND OTHERS	1	2	3	4	5	6	7

Figure 5-9: Instrument for Assessing Executive Leadership
and Management Effectiveness (continued on next page)

Compared to the BEST senior officer I have observed, this officer is:

1   Much lower/worse
2   Definitely lower/worse
3   Somewhat lower/worse
4   About equal
5   Somewhat higher/better
6   Definitely higher/better
7   Much higher/better

<u>Circle Your Rating</u>

SETS HIGH STANDARDS AND CONSISTENTLY ENFORCES THEM	1	2	3	4	5	6	7
EFFECTIVELY MOTIVATES SUBORDINATES	1	2	3	4	5	6	7
WORKS EFFECTIVELY WITH OTHERS	1	2	3	4	5	6	7
SENSITIVE TO THE NEEDS AND VALUES OF OTHERS	1	2	3	4	5	6	7
SENSITIVE TO DIFFERENCES IN SOCIAL/CULTURAL VALUES	1	2	3	4	5	6	7
FOSTERS AND PROMOTES TEAMWORK	1	2	3	4	5	6	7
DISPLAYS AND PROMOTES INITIATIVE	1	2	3	4	5	6	7
HAS THE RESPECT AND CONFIDENCE OF OTHERS	1	2	3	4	5	6	7
FAIR AND CONSISTENT IN EVALUATING SUBORDINATES	1	2	3	4	5	6	7

Figure 5-9:   Instrument for Assessing Executive Leadership and Management Effectiveness (continued on next page)

Compared to the BEST senior officer I have observed, this officer is:

1	Much lower/worse
2	Definitely lower/worse
3	Somewhat lower/worse
4	About equal
5	Somewhat higher/better
6	Definitely higher/better
7	Much higher/better

<u>Circle Your Rating</u>

EFFECTIVENESS AT NEGOTIATION AND CONFLICT MANAGEMENT	1	2	3	4	5	6	7
FAIR AND CONSISTENT AT RECOGNIZING, REWARDING AND SANCTIONING SUBORDINATES	1	2	3	4	5	6	7
UNDERSTANDS ORGANIZATIONAL CULTURE	1	2	3	4	5	6	7
CREATES A POSITIVE ORGANIZATIONAL CLIMATE	1	2	3	4	5	6	7
EFFECTIVENESS AS A MANAGER	1	2	3	4	5	6	7
UNDERSTANDING OF THE ECONOMIC, FINANCIAL, POLITICAL, REGULATORY, TECHNOLOGICAL, SOCIAL AND COMPETITIVE ENVIRONMENT AFFECTING THE ORGANIZATION	1	2	3	4	5	6	7
CREATES A CLEAR STRATEGIC VISION FOR THE ORGANIZATION	1	2	3	4	5	6	7

Figure 5-9: Instrument for Assessing Executive Leadership
and Management Effectiveness (continued on next page)

Compared to the BEST senior officer I have observed, this officer is:

1	Much lower/worse
2	Definitely lower/worse
3	Somewhat lower/worse
4	About equal
5	Somewhat higher/better
6	Definitely higher/better
7	Much higher/better

<u>Circle Your Rating</u>

EFFECTIVENESS AT STRATEGIC PLANNING	1	2	3	4	5	6	7
ESTABLISHES CLEAR AND EFFECTIVE POLICY	1	2	3	4	5	6	7
EFFECTIVENESS AT ACQUIRING REQUIRED RESOURCES FOR THE ORGANIZATION	1	2	3	4	5	6	7
EFFECTIVENESS AT ALLOCATING LIMITED RESOURCES AMONG COMPETING PRIORITIES	1	2	3	4	5	6	7
MANAGES TIME EFFECTIVELY	1	2	3	4	5	6	7
CONSISTENTLY PRODUCES HIGH-QUALITY WORK ON TIME AND WITHIN BUDGET	1	2	3	4	5	6	7
ACQUIRES AND USES POWER EFFECTIVELY	1	2	3	4	5	6	7
TENACITY AND FOLLOW-THROUGH	1	2	3	4	5	6	7

Figure 5-9: Instrument for Assessing Executive Leadership
and Management Effectiveness (continued on next page)

Compared to the BEST senior officer I have observed, this officer is:

1	Much lower/worse
2	Definitely lower/worse
3	Somewhat lower/worse
4	About equal
5	Somewhat higher/better
6	Definitely higher/better
7	Much higher/better

<u>Circle Your Rating</u>

ABILITY TO CONCEPTUALIZE	1	2	3	4	5	6	7
ABILITY TO SYNTHESIZE, INTEGRATE AND SIMPLIFY	1	2	3	4	5	6	7
SYSTEMATICALLY, RIGOROUSLY, AND LOGICALLY ANALYZES COMPLEX PROBLEMS/ISSUES	1	2	3	4	5	6	7
EFFECTIVELY MAKES DECISIONS UNDER CONDITIONS OF RISK, UNCERTAINTY AND AMBIGUITY	1	2	3	4	5	6	7
MAKES TIMELY AND EFFECTIVE DECISIONS	1	2	3	4	5	6	7
RECOGNIZES OPPORTUNITIES AND ACTS DECISIVELY TO TAKE ADVANTAGE OF THEM	1	2	3	4	5	6	7
EXHIBITS CREATIVITY, RESOURCEFULNESS, IMAGINATION AND CREATIVITY IN SOLVING PROBLEMS	1	2	3	4	5	6	7
ACTS DECISIVELY IN FAMILIAR AND UNFAMILIAR SITUATIONS	1	2	3	4	5	6	7

Figure 5-9: Instrument for Assessing Executive Leadership and Management Effectiveness (continued on next page)

Compared to the BEST senior officer I have observed, this officer is:

1   Much lower/worse
2   Definitely lower/worse
3   Somewhat lower/worse
4   About equal
5   Somewhat higher/better
6   Definitely higher/better
7   Much higher/better

<u>Circle Your Rating</u>

ABILITY TO CONCEPTUALIZE OF ORGANIZATIONS AS SYSTEMS	1	2	3	4	5	6	7
UNDERSTANDING OF ORGANIZATIONAL FUNCTIONS AND PROCESSES	1	2	3	4	5	6	7
DELEGATES EFFECTIVELY	1	2	3	4	5	6	7
LISTENS WELL	1	2	3	4	5	6	7
WRITES EFFECTIVELY	1	2	3	4	5	6	7
SPEAKS EFFECTIVELY	1	2	3	4	5	6	7
WORKS WELL WITH THE MEDIA AND PUBLIC	1	2	3	4	5	6	7
EFFECTIVELY EVALUATES AND DEVELOPS SUBORDINATES	1	2	3	4	5	6	7
MANAGES INFORMATION AND COMPUTER SYSTEMS EFFECTIVELY	1	2	3	4	5	6	7

Figure 5-9: Instrument for Assessing Executive Leadership and Management Effectiveness (continued on next page)

Compared to the BEST senior officer I have observed, this officer is:

1   Much lower/worse
2   Definitely lower/worse
3   Somewhat lower/worse
4   About equal
5   Somewhat higher/better
6   Definitely higher/better
7   Much higher/better

<u>Circle Your Rating</u>

EMOTIONALLY STABLE	1	2	3	4	5	6	7
MANAGES STRESS WELL	1	2	3	4	5	6	7
EFFECTIVELY DEALS WITH AND MANAGES CHANGE AND STRATEGIC TRANSITIONS	1	2	3	4	5	6	7
EFFECTIVELY BALANCES WORK AND PERSONAL LIFE	1	2	3	4	5	6	7
THINKS AND ACTS INDEPENDENTLY	1	2	3	4	5	6	7
SATISFACTION WITH JOB AND PROFESSION	1	2	3	4	5	6	7

Figure 5-9:   Instrument for Assessing Executive Leadership
and Management Effectiveness

In the Civil Engineering functional specialty, technical competence and qualifications can be measured by a number of indicators. As indicated in Figure 5-5, technical expertise is a function of knowledge and experience. Knowledge can be operationally defined by educational degrees. To be adequately prepared for executive-level responsibilities, Civil Engineering officers must possess an undergraduate degree in architecture or a recognized engineering discipline. They should also possess a graduate degree in either engineering, management or public administration. In addition, it is desirable for the officer to have completed as many of the professional continuing education courses offered by AFIT's School of Civil Engineering and Services as possible, i.e., for which the officer is eligible.

The other component factor of technical expertise, i.e., experience, can be measured by comparing the officer's assignment history against those areas of required functional expertise listed in the previous section (RQ 3.4). In addition to reflecting functional depth and breadth, the officer's assignment history should also include as many of the following positions as possible:

(1)   Design engineer

(2)   Contract programmer

(3)   Contract manager

(4)   Chief, Engineering Design Section

(5)   Chief, Requirements and Logistics

(6)   Chief, Readiness

(7)   Chief, Operations

(8)   Chief, Industrial Engineering

(9)   MAJCOM Civil Engineering staff officer

(10)   MAJCOM branch/division chief

(11)   Civil engineering squadron commander / base civil engineer

In addition to education and experience, technical competence in the Civil Engineering functional specialty can also be indicated by professional licensing. Licensing is a particularly effective method of measuring technical expertise because it considers both knowledge acquired through education and the ability to apply that knowledge gained through practical experience. It is desirable for Civil Engineering officers to be licensed as a registered professional engineer or architect.

Finally, the Civil Engineering officer's technical competence can also be self-assessed in the same manner as has been suggested for professional military and general management effectiveness factors. Figure 5-10 illustrates the suggested self-assessment instrument to be completed by the officer and a representative sample of coworkers.

OFFICER: Lt Col John Doe

PURPOSE: This instrument is intended to assist the above-named officer develop professionally by providing anonymous feedback on how he/she is perceived by coworkers relative to a number of important executive Civil Engineering functional effectiveness factors.

INSTRUCTIONS: You have been randomly identified to participate in this professional development effort. Participation is totally voluntary. The subject officer is unaware of (and cannot determine) who participated in this survey. For each of the following scales, please rate the officer by comparing him/her with that senior Civil Engineering officer (i.e., colonel or general) you have known or observed who BEST exemplified that particular quality. Please use the following scale for rating the officer on each factor:

Compared to the BEST senior Civil Engineering officer I have observed, this officer is:

1	Much lower/worse
2	Definitely lower/worse
3	Somewhat lower/worse
4	About equal
5	Somewhat higher/better
6	Definitely higher/better
7	Much higher/better

<u>Circle Your Rating</u>

EFFECTIVENESS IN DIRECTING COMBAT ENGINEERING OPERATIONS	1	2	3	4	5	6	7
KNOWLEDGE OF COMBAT ENGINEERING METHODS	1	2	3	4	5	6	7
ABILITY TO ANALYZE FACILITY REQUIREMENTS	1	2	3	4	5	6	7
EFFECTIVENESS IN COMPREHENSIVE PLANNING AND COMMUNITY DEVELOPMENT	1	2	3	4	5	6	7

Figure 5-10:   Instrument for Assessing Civil Engineering
Technical Effectiveness (continued on next page)

Compared to the BEST senior Civil Engineering officer I have observed, this officer is:

1 Much lower/worse
2 Definitely lower/worse
3 Somewhat lower/worse
4 About equal
5 Somewhat higher/better
6 Definitely higher/better
7 Much higher/better

<u>Circle Your Rating</u>

KNOWLEDGE OF ENVIRONMENTAL PROTECTION REGULATIONS AND METHODS	1	2	3	4	5	6	7
ABILITY TO DEVELOP AND EXECUTE CONSTRUCTION, O&M, HOUSING, NONAPPROPRIATED FUND AND OTHER PROGRAMS	1	2	3	4	5	6	7
FINANCIAL MANAGEMENT EFFECTIVENESS	1	2	3	4	5	6	7
KNOWLEDGE OF REAL PROPERTY MANAGEMENT POLICIES AND PROCEDURES	1	2	3	4	5	6	7
KNOWLEDGE OF REAL ESTATE ACQUISITION AND DISPOSITION PROCEDURES	1	2	3	4	5	6	7
KNOWLEDGE OF BASIC PRINCIPLES AND PRACTICES OF ARCHITECTURAL AND ENGINEERING DESIGN	1	2	3	4	5	6	7
EFFECTIVENESS IN ACQUIRING AND MANAGING CONTRACTS FOR ARCHITECT-ENGINEER SERVICES	1	2	3	4	5	6	7

Figure 5-10: Instrument for Assessing Civil Engineering
Technical Effectiveness (continued on next page)

Compared to the BEST senior Civil Engineering officer I have observed, this officer is:

1   Much lower/worse
2   Definitely lower/worse
3   Somewhat lower/worse
4   About equal
5   Somewhat higher/better
6   Definitely higher/better
7   Much higher/better

<u>Circle Your Rating</u>

KNOWLEDGE OF CONSTRUCTION MANAGEMENT METHODS	1	2	3	4	5	6	7
EFFECTIVENESS IN MANAGING CONSTRUCTION PROJECTS AND CONSTRUCTION/SERVICE CONTRACTS	1	2	3	4	5	6	7
KNOWLEDGE AND USE OF INDUSTRIAL ENGINEERING TECHNIQUES	1	2	3	4	5	6	7
ABILITY TO EFFECTIVELY USE AUTOMATED MANAGEMENT INFORMATION SYSTEMS	1	2	3	4	5	6	7
KNOWLEDGE OF OPERATIONS AND MAINTENANCE POLICIES AND PROCEDURES IN ALL AREAS, I.E., PAVEMENTS & GROUNDS, STRUCTURES, MECHANICAL SYSTEMS AND ELECTRICAL SYSTEMS	1	2	3	4	5	6	7
KNOWLEDGE OF BASIC FIRE PROTECTION AND CRASH RESCUE POLICIES AND PROCEDURES	1	2	3	4	5	6	7

Figure 5-10:   Instrument for Assessing Civil Engineering
Technical Effectiveness (continued on next page)

Compared to the BEST senior Civil Engineering officer I have observed, this
officer is:

        1   Much lower/worse
        2   Definitely lower/worse
        3   Somewhat lower/worse
        4   About equal
        5   Somewhat higher/better
        6   Definitely higher/better
        7   Much higher/better

                                            <u>Circle Your Rating</u>

EFFECTIVENESS IN   1   2   3   4   5   6   7
MANAGING FAMILY HOUSING
PROGRAMS

KNOWLEDGE OF SUPPLY   1   2   3   4   5   6   7
SUPPORT POLICIES AND
PROCEDURES

KNOWLEDGE OF TRANSPORTATION   1   2   3   4   5   6   7
SUPPORT POLICIES AND
PROCEDURES

KNOWLEDGE OF COMMUNICATION   1   2   3   4   5   6   7
AND DATA AUTOMATION SUPPORT
POLICIES AND PROCEDURES

KNOWLEDGE OF CIVILIAN   1   2   3   4   5   6   7
PERSONNEL POLICIES AND
PROCEDURES

OVERALL EFFECTIVENESS AS   1   2   3   4   5   6   7
A BASE CIVIL ENGINEER

            Figure 5-10: Instrument for Assessing Civil Engineering
                          Technical Effectiveness

(RQ 3.6) **What executive development resources are available to improve performance on the respective capability/effectiveness factors incorporated in the proposed air force executive self-assessment and development system?**

The design of an Air Force executive self-assessment and development system should associate with each executive effectiveness factor one or development resources by which the officer can improve that skill, qualification or competency (if the self-assessment indicates improvement is warranted). In general, executive development resources can be categorized in one of two modalities: education/training and experience. Figure 5-11 illustrates a conceptual matrix relating these development modalities to the respective categories of executive effectiveness factors. The following discussion briefly considers the executive development resources in each cell of the matrix.

Professional Military Effectiveness Factors.

(1) Education and Training. A number of professional military education (PME) opportunities are available to all officers to assist them in acquiring essential military skills, qualities and qualifications. The PME process actually starts prior to the officer's entry in the active service through one of several alternative precommissioning programs, e.g., the Air Force Academy, the Reserve Officer Training Corps and Officer Candidate School. Once on active duty, the company grade officer (captains with more than four years, but less than seven years, of service) is given the opportunity to attend (in residence) the Squadron Officer School, where the focus is on developing the officer's basic leadership, officership and communication

	EXECUTIVE DEVELOPMENT MODALITY	
TYPE OF EFFECTIVENESS FACTOR:	EDUCATION AND TRAINING	EXPERIENCE
PROFESSIONAL MILITARY		
GENERAL MANAGEMENT		
TECHNICAL/ FUNCTIONAL		

Figure 5-11: Executive Development Resource Matrix

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skills. The officer is also introduced to basic concepts of aerospace force employment.(010:4-31)

Majors are given the opportunity to complete intermediate service school, in residence, by a seminar program or by correspondence. For Air Force officers, this is normally the Air Command and Staff College. A limited number of officers are selected to attend the Armed Forces Staff College, the Army Command and General Staff College or the Navy Command and Staff College. At this level of PME, the emphasis is on providing the officer the opportunity to acquire the skills and knowledge required to perform effectively in command and staff positions. The curriculum includes staff communications and research, command leadership and resource management, national security affairs, warfare studies, military history and theory, and space operations.(010:4-30)

Senior service school is the highest level of officer PME. For most Air Force officers, this is the Air War College. The program can be completed in residence (for a very limited number of students), through a seminar program, or by correspondence. A limited number of Air Force officers are also selected to attend the National War College, the Industrial College of the Armed Forces, the Army War College and the Naval War College. The curriculum prepares officers in the grade of lieutenant colonel and colonel for executive-level military responsibilities. The curriculum of the Air War College places primary emphasis on the integrated employment of aerospace power, based on a thorough analysis of national security policy, doctrine and strategy and on an in-depth assessment of US and allied capabilities compared

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to those of potential adversaries across the entire spectrum of conflict. The curriculum includes national and international security affairs, resource management, executive leadership and fitness, and the development and employment of aerospace forces in service, joint and combined operations.(010:4-29)

In addition to these general officer professional military education programs, other, somewhat more specialized (but non-functional/technical), courses are available to help selected officers further develop their military skills. For example, the Air Force's Air University Center for Professional Development offers the "Combined Air Warfare Course," the "Contingency/Wartime Planning Course," and the "USAF Commanders Seminar."(010)

(2) Experience. The other modality available to officers for developing their executive military competencies and qualifications is to gain as much relevant experience as possible. At the executive level, the emphasis is on breadth of experience, acquired through a variety of assignments. Variety of experience includes:

(a) Levels of assignment (e.g., base/squadron, group, wing, numbered air force, major command, and HQ USAF);

(b) Different major commands/missions;

(c) Command and staff experience;

(d) Service, joint and combined organizations/operations; and

(e) Overseas experience.

In general, the officer cannot unilaterally control or determine his/her assignments. However, he/she can influence the assignment process by requesting specific assignments to enhance the development of executive military abilities.

General Leadership and Management Effectiveness Factors.

(1)   Education and Training. A wide variety of education and training courses/programs are available to help officers develop those general leadership and management skills required for effective performance in executive positions. The type of program or course required will be determined through the self-assessment process. The Air Force encourages its field grade officers who are preparing for executive level assignments to acquire an advanced academic degree in management or public administration.(009:9) In general, two options are available the officer for acquiring an advanced academic degree in management (or related discipline, e.g., engineering management, systems management, logistics management, etc.). A limited number of officers can attend graduate school through the Air Force Institute of Technology, either at the Institute's campus at Wright-Patterson Air Force Base, Ohio, or at a civilian institution. Selected officers attend these programs as their regular assignment. For the majority of officers, however, the greater opportunity to acquire an advanced degree (in management) is through the off-duty education programs available at most Air Force bases throughout the world.

In addition to advanced academic degree programs, a large number and wide variety of executive development programs/courses are also readily

available. Appendix A includes the program outline for executive development courses offered by 18 different civilian universities to which the Department of Defense currently sends its senior officers. The programs described in Appendix A are a representative sample of a much larger population of such executive development opportunities. Virtually every major university offers an executive development program of some type. However, the opportunity to attend one of these courses at Air Force expense is extremely limited. Currently, less than 20 Air Force senior officers attend these courses annually. Selection is not (necessarily) based on a systematic assessment of senior officer executive development requirements, but rather by allocating available quotas (determined by budgetary constraints) to the Air Force's major command where the appointment is made by the commander.(199) The duration (often four to six weeks, or longer) and relatively high cost of these courses normally precludes attendance by officers not formally sponsored by the Air Force. However, many less comprehensive, less expensive and shorter executive developmer.t courses are available to officers (during off-duty time) through local universities.

(2)   Experience.   The complementary alternative to executive development education/training programs for improving general leadership and management effectiveness is practical, on-the-job experience. The officer can actively seek out those assignments (and jobs within assignments) that will provide the opportunity to gain additional leadership and managerial experience. Again, the emphasis in preparing for executive-level positions is gaining breadth and variety of experience in the respective managerial

functions and processes. This opportunity will vary within the respective Air Force functional specialties.

Functional/Technical Effectiveness Factors.

(1) Education and Training. The Air Force also offers a variety of education/training opportunities for officers to develop the depth and breadth of their functional/technical expertise, should the self-assessment process indicate that further development is necessary or desirable. These opportunities vary with the officer's functional specialty. Continuing with the Civil Engineering example, both advanced degree and professional continuing education courses are available through the Air Force Institute of Technology.(010:4-43 - 4-68) These courses are listed in Figure 5-12.

(2) Experience. Again, if the self-assessment process indicates that additional experience is required for executive effectiveness, the officer has the opportunity to pursue appropriate positions through the assignment process. In the case of the Civil Engineering example, officers (below the rank of colonel) would negotiate such assignments with the PALACE BLUEPRINT officer assignments section at the Air Force Military Personnel Center. Ideally, the Civil Engineering officer's assignment history leading up to the executive level would provide him/her with exposure to all of the sub-functional areas within the functional specialty.

ADVANCED DEGREE PROGRAMS

MS - Construction Engineering
MS - Electrical Engineering
PhD - Electrical Engineering
MS - Industrial Engineering
MS - Mechanical Engineering
PhD - Mechanical Engineering
PhD - Sanitary Engineering
MS - Soil and Foundation Engineering
PhD - Soil and Foundation Engineering
PhD - Structural Engineering
MS - Engineering Management

PROFESSIONAL CONTINUING EDUCATION COURSES

Engineering and Services Information Management System Manager
Environmental Protection Committee Members
Introduction to Base Civil Engineering
Project Programming
Base Civil Engineer
Industrial Engineering Management Applications
Family Housing Management Applications
Financial Management Applications
Engineering and Environmental Planning Management Applications
Real Property Management
Contract Preparation and Management
Fire Protection Management Applications
Operations Management Applications
Logistics Management for Civil Engineering
Readiness Management
Air Base and Environmental Planning
Hazardous Waste Management
Construction Cost Estimating
Roof Design and Management
Mechanical Engineering for Supervisors
Electrical Engineering for Supervisors
TEMPEST/HEMP Shielding Design
Facility Systems Design
Air Base Combat Engineering
Architectural Planning
Airfield Pavement Engineering
Heating, Ventilating and Air-Conditioning Design
HVAC Control Systems
Electrical Power Systems Design
Corrosion Control
Industrial Water Treatment

Figure 5-12:   Civil Engineering Education/Training Programs

Finally, the Air Force also offers another, somewhat unique opportunity for officers to acquire additional functional/technical experience. The Air Force Institute of Technology's "Education With Industry" program offers selected officers the opportunity to spend 10 - 12 months working with a civilian company.(010:4-50 - 4-54) The program currently includes 32 functionally-oriented courses. Of that total, the following pertain to the Civil Engineering example:

     Civil Engineering/Energy Management

     Civil Engineering Land Use/Regional Planning

     Civil Engineering Construction

     Civil Engineering Corrosion Control

     Civil Engineering Design

     Civil Engineering Industrial Maintenance

(RQ 3.7)   What factors should be considered in operationalizing and implementing the proposed air force executive self-assessment and development system and in operating and maintaining that system after it has been implemented?

The final phase in the process of designing a comprehensive Air Force executive self-assessment and development system is to address the factors which need to be considered in operationalizing, implementing, operating and maintaining the system.   This involves steps 9 through 15 in the design process proposed at the beginning of this chapter (i.e., in section RQ 3.1).

Operationalizing the System.

As used in this discussion, the term "operationalizing" refers to the process of converting the conceptual system design in to a working prototype.   This developmental process first involves specifying specific responsibilities for all agencies who will be concerned with the system. A general discussion of these responsibilities currently exists in Chapter 2 of AFR 36-23.(009:11-13)   The process will require the combined, coordinated efforts of many agencies, including HQ USAF, the Air Force Military Personnel Center, the respective major commands (particularly those which are uniquely associated with certain functional specialties), certain special operating agencies (e.g., the Air Force Engineering and Services Center and the Logistics Management Center), consolidated base personnel offices, commanders/supervisors and the individual officer.   In particular, the following responsibilities (at least) need to be assigned to specific agencies:

(1)   Overall responsibility for designing, developing and fielding the system;

(2)   Formulation of general executive development policies and procedures;

(3)   Definition of specific professional military executive effectiveness factors to be included in the system;

(4)   Definition of specific general leadership and management executive effectiveness factors to be included in the system;

(5)   Definition of specific technical/functional executive effectiveness factors to be included in the system for each Air Force technical/career specialty;

(6)   Identification of appropriate operational definitions (measurement methods) and associated standards for each effectiveness factor included in the system;

(7)   Identification of appropriate executive development resources and methods for each factor included in the system;

(8)   Development and testing of a working prototype of the system;

(9)   Final development and validation testing of the system;

(10)   Production of the final system;

(11)   Distribution of the system;

(12)   "Marketing" of the system to the target officer population;

(13)   Operating, administering and servicing the fielded system; and

(14)   Periodically (regularly) reviewing, revalidating and revising the system, as necessary.

An important decision to be during the operationalization portion of the design process (if not before) is the target population. A self-assessment and development system designed for all officers might well be substantially different than one designed for those officers more directly and immediately concerned with developing executive capabilities and qualifications, e.g. field grade officers.

A related design question is whether the proposed execut.ve self-assessment and development system should be mandatory or optional for the targeted officer population. This design decision would have a profound impact on the structure of the system and the associated administrative maintenance requirements. Another feasible alternative (with some intuitive appeal and merit) might be to make mandatory for all officers the development and annual review of a comprehensive, long-range executive/professional development plan (prepared by the individual officer and approved by the officer's supervisor/commander). This mandatory development plan would be based on the results of the officer's (optional) self-assessment, annual performance evaluations prepared by the officer's rating official, and other relevant inputs.

Another important decision to be made in building an operational prototype of the proposed system is the medium to be employed. Several alternatives are possible. For example (and only for example), the system could be operationalized as:

(1)   An official Air Force publication or set of publications;

(2) A comprehensive printed package available to all eligible officers through the consolidated base personnel office;

(3) If the decision is made to make the system mandatory, an accountable printed package distributed directly to all eligible officers;

(4) A computer program available in the consolidated base personnel office (or available on disks for distribution to units or individual officers) which could be run to generate a hard copy of the package; or

(5) An _interactive_ computer program available at the consolidated base personnel office (or available on disks for distribution to units or individual officers).

Once the prototype model of the proposed executive self-assessment and development system has been developed, it needs to be subjected to a rigorous and controlled field test to identify and correct unanticipated problems. Such a test would involve the building of a detailed, comprehensive test plan which would specify (at least);

(1) Test objectives;

(2) Responsibilities of all concerned agencies/individuals;

(3) Test sample and its relation to the target population;

(4) Evaluation criteria and associated standards for acceptance or rejection;

(5) Test procedures, including data collection and analysis procedures; and

(6) Duration of the test.

Assuming modifications to the prototype will be necessary, the tested system would subsequently be changed as necessary to produce the final version or

"production model" of the system. Depending on the nature of the changes made to the prototype, a final validation testing (according to the same or a modified test plan) might also be required prior to implementing the system.

Implementing the System.

Following development and testing, the executive self-assessment and development system is implemented throughout the Air Force. The implementation process involves three functions: production, distribution and marketing. While these functions are not conceptually difficult, they still need to be considered during the process of design. A particularly important aspect of implementation is ensuring the funds necessary to produce and distribute the system publications, packages or computer programs are properly programmed and budgeted.

For implementation to be successful, consideration also needs to be given as to how the new system will be marketed to the target population. The objective must be more than simply making the targeted officers aware of the new system and its potential benefits to them. The objective must be to develop active, if not enthusiastic, interest in the system. A comprehensive marketing strategy and program on the order of that used with the new Officer Evaluation System might be appropriate. This would certainly be true if the system were to be mandatory or if a mandatory professional development plan, based on the system, were to be implemented. An aggressive marketing campaign for the system might be even more important if the system is designed to be optional. The marketing strategy should be based on making

clear the basic linkages shown in Figure 5-13 (i.e., the underlying motivation for this study).

Operating and Maintaining the System.

Design of the proposed Air Force executive self-assessment and development system must also consider the requirements for operating and maintaining the system once it has been developed, tested and implemented. System "O&M" includes developing procedures to ensure a continuing supply of any consumable system products. It also includes training personnel in the field, as required, to provide an required system support.

However, the most important system O&M design consideration is the process by which the system will be periodically/regularly reviewed and modified, as required, to ensure that it remains complete, current and valid. The most important aspect of this review would be to ensure that the system's executive effectiveness factors (which constitute the basis of the system) continue to reflect those capabilities, qualities and qualifications the Air Force currently values in its senior officers and those which will become more important in the future. System updates would also be designed to incorporate more appropriate assessment instruments or modified standards. Finally, such periodic system updates would be intended to include additional executive development resources and references.

ORGANIZATIONAL
EFFECTIVENESS

$\triangle$

(+)

EXECUTIVE
EFFECTIVENESS

(+)

SYSTEMATIC
DEVELOPMENT   (+)   EXECUTIVE-LEVEL
OF EXECUTIVE   PROMOTION
CAPABILITIES   OPPORTUNITY

(+)

SYSTEMATIC
SELF-ASSESSMENT
OF EXECUTIVE
CAPABILITIES
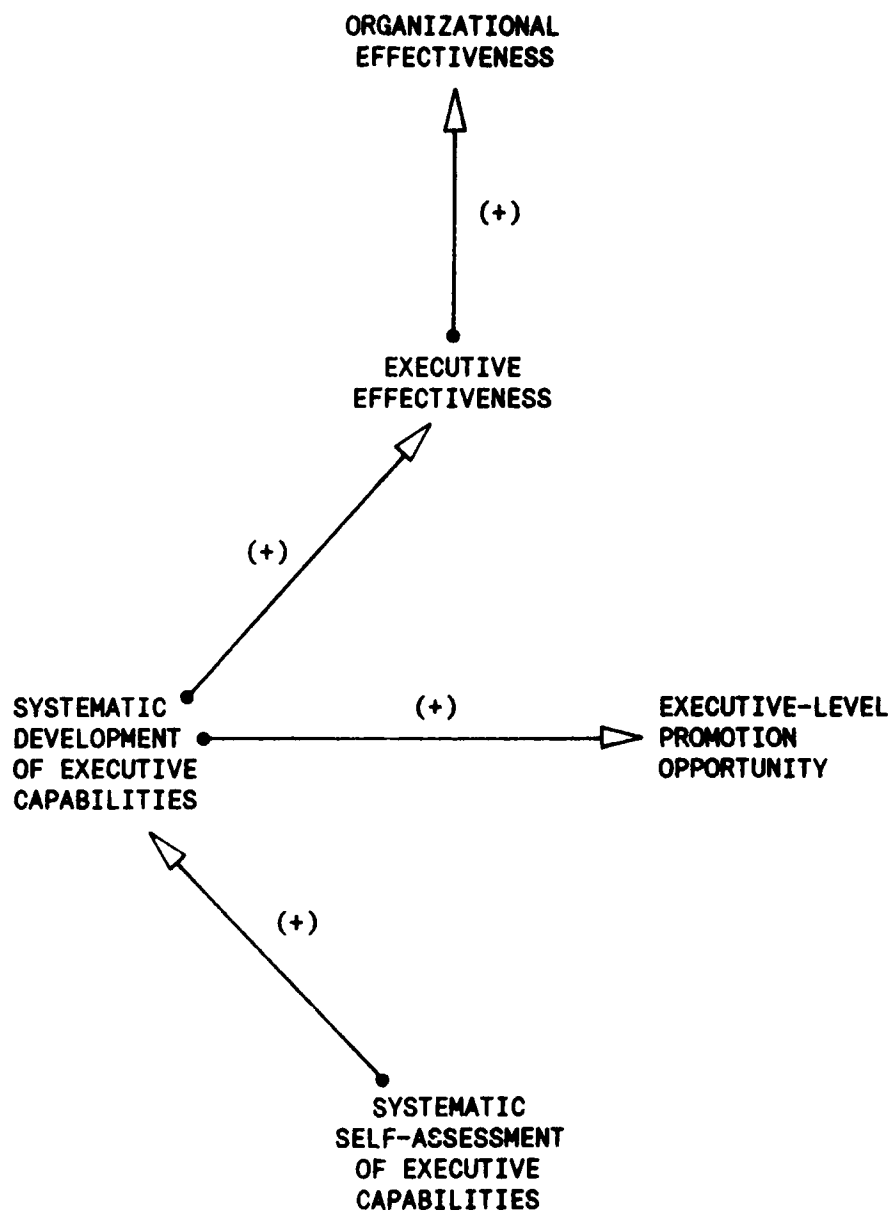
Figure 5-13:   Relationship Between Executive Self-Assessment and
               Development, Organizational Effectiveness and
               Promotion Opportunity

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CHAPTER VI

CONCLUSIONS

AND

RECOMMENDATIONS

Overview

The final chapter of this report is intended to accomplish the study's fourth principal objective:

> Present summary conclusions concerning the study and develop specific recommendations for management action and follow-on, related research.

The chapter comprises two major sections. The first section presents conclusions which summarize the principal findings relative to each of the study's other three research objectives, i.e., those objectives discussed in Chapter III, IV and V respectively. Specific findings and conclusions are presented which address each of the research questions and hypotheses associated with the respective study objectives.

The second section of the chapter presents recommendations for management action, i.e, specific recommendations for the Air Force to adopt

relative to the design, development, implementation and follow-on support of a comprehensive executive self-assessment and development system. It also presents specific recommendations for follow-on related research designed to validate and extend the initial investigation described in this report.

Objective One: Develop a comprehensive model of executive effectiveness in Air Force Organizations, i.e., a model that identifies those factors significantly affecting executive effectiveness.

(RQ 1.1): What is the most appropriate technology to use to construct a comprehensive conceptual model of executive effectiveness in Air Force organizations?

The influence diagram, a well-developed and widely-applied systems analysis technology, was judged to be the most effective technique for constructing a comprehensive model of executive effectiveness in the Air Force. This modeling technology has the requisite power and flexibility to effectively deal with the complexity and varying degrees of uncertainty associated with the variables and relationships inherent in the executive effectiveness model developed in this study.

(RQ 1.2): Are there any comprehensive conceptual models that describe the factors affecting executive effectiveness and the relationship between executive and organizational effectiveness in Air Force organizations?

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(Ho 1.1): There are no comprehensive conceptual models that adequately describe executive effectiveness and performance in Air Force organizations.

(1) To date, no comprehensive conceptual models have been developed and reported that specifically relate executive effectiveness to organizational effectiveness in the Air Force and which identify those specific factors affecting executive effectiveness in Air Force organizations. Consequently, the null hypothesis (Ho 1.1) cannot be rejected.

(2) The review of the relevant literature conducted for this study indicated that compared with the Army and the Navy, the Air Force has conducted and reported relatively little systematic research into executive-level leadership and management effectiveness.

(RQ 1.3): What factors significantly affect executive performance effectiveness in Air Force organizations?

(1) Executive effectiveness in the Air Force is affected by many diverse factors. An extensive review of the relevant research in this area suggests that, in general, these factors can be grouped into three categories:

      (a) Professional military effectiveness factors;

      (b) General leadership and management effectiveness factors; and

      (c) Functional/technical effectiveness factors.

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(2)   Official Air Force publications do not currently provide a comprehensive, explicit statement of those specific competencies, qualities and qualifications valued by the Air Force as important for effective performance at the executive level.

(3)   Official Air Force publications provide no guidance or statement of beliefs concerning the capabilities, qualities and qualifications required for effective performance at the senior executive level, i.e., at the general/flag officer level.

(RQ 1.4):   Are there any significant differences in executive capabilities and qualifications required in Air Force organizations and those required in non-Air Force organizations of comparable size and complexity?

(Ho 1.2):   There are no significant differences between the executive capabilities and qualifications required in Air Force organizations and those required in non-Air Force organizations of comparable size and complexity.

(1)   A comprehensive review of the published research concerning this general question identified no studies specifically comparing Air Force executives with those in the public/private sector.

(2)   The results and conclusions reported in several studies comparing Army and Navy executives with their civilian counterparts were inconsistent. However, on balance, the reported research suggests there is probably little

significant difference in the factors affecting executive effectiveness in the Air Force and those factors influencing the effectiveness of executives in public- and private-sector organizations of comparable size and complexity. The evidence was judged to be insufficient to reject the null hypothesis (Ho 1.2).

(RQ 1.5): What is the difference between the capabilities and qualifications required for effective performance at the executive level in Air Force organizations and the capabilities and qualifications required for effective performance at subordinate levels?

(Ho 1.3): There is no significant difference between the capabilities and qualifications required for effective performance at the executive level and at subordinate levels in Air Force organizations.

(1) No specific research into this particular question (i.e., directly involving the Air Force) has been reported. However, there is considerable research available which examines this question in the context of other public-sector and private-sector organizations of comparable size and complexity. This research is overwhelmingly consistent in concluding that the capabilities, qualities and qualifications required for effective performance at the executive level are significantly different from those comparable factors affecting performance effectiveness at subordinate organizational levels. These differences in effectiveness factors are

directly related to the corresponding differences in the essential character of executive-level and subordinate positions of authority and responsibility.

(2)   Despite the circumstantial nature of the evidence offered by this indirectly-related research, it is sufficient to reasonably conclude that the specific factors influencing effective performance at the executive level in Air Force organizations are significantly different from those factors affecting performance effectiveness at subordinate levels of authority and responsibility. Consequently, the null hypothesis (Ho 1.3) is rejected.

(3)   Performance effectiveness in positions of authority and responsibility below the executive level is not necessarily a valid and reliable predictor of effectiveness at the executive level.

(RQ 1.6):   What is the difference between executive capabilities and qualifications required in Air Force organizations now and those capabilities and qualifications that are likely to be required in the future?

(Ho 1.4):   There is no significant difference between the executive capabilities and qualifications required now in Air Force organizations and those that are likely to be required in the future.

(1)   No research dealing directly with this specific question has been reported.   However, there is a considerable amount of research available which addresses this question in the context of other public-sector and private-sector organizations of comparable size, complexity and technology.

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The overwhelming preponderance of these analyses predicts that there will be significant changes in the capabilities, qualities and qualifications required for executive effectiveness in the future.

(2)   Based on the evidence considered in this study, it is reasonable to conclude that the specific factors which will influence the effectiveness of Air Force executives in the future are significantly different than those which currently affect executive effectiveness in the Air Force. **Therefore, the null hypothesis (Ho 1.4) is rejected.**

(RQ 1.7): How can those factors affecting executive effectiveness in Air Force organizations, and the relationship between those factors, be integrated into a comprehensive conceptual model?

Chapter III of this report develops a comprehensive influence diagram model of executive and organizational effectiveness in the Air Force. This model comprises professional military effectiveness factors, general leadership and management factors, and technical/functional effectiveness factors. The graphical influence diagram model can be readily automated to more effectively and efficiently deal with the model's inherent complexity.

Objective Two: Describe, analyze and evaluate the system/process by which the Air Force assesses and develops executive capabilities and effectiveness in its officers; include in this analysis and evaluation the executive self-assessment and development course presented at the Air War College.

(RQ 2.1): What criteria and associated standards should be used to evaluate:

(1) The Air Force's system/process for assessing executive capabilities, qualifications and effectiveness in its officers?

(2) The Air Force's system/process for developing executive capabilities, qualifications and effectiveness?

(3) The Air War College's resident course in executive self-assessment and development?

Summarizing the more extensive discussion presented in Chapter IV, an effective Air Force executive self-assessment and development system must:

(1) Be based on a comprehensive inventory of executive effectiveness factors (i.e., capabilities, qualities and qualifications) valued by the Air Force for its future executives/senior officers;

(2) For each executive effectiveness factor, employ assessment methods which are valid, reliable, precise, objective, convenient and readily understood;

(3) For each executive effectiveness factor, specify associated standards or desired values;

(4)   Associate with each executive effectiveness factor a number of appropriate professional development methods or resources;

(5)   Be systematically/routinely revised to maintain its currency and validity; and

(6)   Improve the effectiveness of Air Force organizations by systematically assessing and developing executive effectiveness.

(RQ 2.2)   How does the Air Force's current executive assessment and development system/process compare with the proposed evaluation criteria?

(1)   There currently exists no formally developed, comprehensive system or process designed specifically to systematically assess and develop in its officers the capabilities, qualities and qualifications required for effective performance at the executive level.

(2)   The annual performance appraisal conducted under the Officer Evaluation System is designed primarily to facilitate the evaluation of promotion potential and is an inadequate approach to officer assessment for purposes of systematic executive/professional development.

(3)   The current officer professional development process is loosely structured, unsystematic and not based on an effective, comprehensive assessment of specific factors instrumental to executive effectiveness.

(4)   Despite considerable evidence to suggest that the competencies, qualities and qualifications required for effective performance at the

executive level are significantly different from those factors influencing performance effectiveness at subordinate levels, the existing Air Force appraisal system does not adequately discriminate between those respective effectiveness factors. The current process essentially employs the same criteria to evaluate a new major and the most senior colonel.

(5)   The current appraisal system does not incorporate, directly or indirectly, specific, measurable standards against which to objectively judge strengths and weaknesses, and upon which to structure a systematic professional development program.

(RQ 2.3)   How does the Air War College's course in executive self-assessment and development compare with the proposed evaluation criteria?

(1)   The Air War College course is not conceptually based on systematically developing those factors which directly affect performance effectiveness at the executive level in Air Force organizations.

(2)   The focus of the course as currently structured is on improving only three (albeit important) effectiveness factors:

(a)   Executive writing skills;

(b)   The individual officer's understanding of his/her own personality type and the implications of personality type for behavior and decision making; and

(c)   Executive health and fitness.

(3) The course is not directly or indirectly related to the Air Force Officer Professional Development system.

Objective Three: Describe the design, development, implementation and continuing operation and maintenance of a comprehensive system/process developed specifically to assist individual Air Force officers in systematically assessing and developing the capabilities, competencies and qualifications required to perform effectively in executive-level positions within the Air Force and Department of Defense.

(RQ 3.1) What process should be followed in designing, implementing and maintaining a comprehensive, effective and practical Air Force executive self-assessment and development system?

Summarizing the more extensive discussion presented in Chapter V, the process should include the following essential elements:

(1) Identifying specific executive effectiveness factors, i.e., the capabilities, qualities and qualifications that the Air Force values as being necessary to perform effectively in executive-level positions now and in the future;

(2) Identifying valid, reliable, precise, objective, convenient and readily understood methods for measuring the officer's current executive effectiveness relative to the specified effectiveness factors;

(3) Specifying standards for each of the executive effectiveness factors included in the system;

(4) Associating with each factor specific executive/professional development methods, resources and technologies; and

(5) Developing a personalized "executive development action plan" based on the results of a comprehensive assessment.

(RQ 3.2)   What objectives, criteria, assumptions and constraints
should be considered in designing, implementing and maintaining a
comprehensive, effective and practical Air Force executive self-assessment
and development system?

(1)   The purpose of the proposed Air Force executive self-assessment
and development system should be to provide individual Air Force officers
with a systematic, effective and convenient method for periodically assessing
their own capabilities, qualities and qualifications for performing
effectively in executive-level positions of authority and responsibility.
It should provide officers with a comprehensive assessment upon which to
develop a personal executive development action plan.

(2)   Summarizing the more extensive discussion presented in Chapter V,
the proposed system should:

(a)   Provide a valid, comprehensive assessment of executive
competencies, qualifications and effectiveness;

(b)   Be convenient to use;

(c)   Facilitate action planning for executive development; and

(d)   Be an integral element of the Air Force officer professional
development system.

(3)   Improving executive effectiveness will contribute directly and
significantly to increasing the effectiveness of Air Force organizations.

(4)   Executive development is a responsibility shared among the individual officer, the officer's supervisor/comm..nder, and the Air Force as an institution.

(5)   It is possible to:

    (a)   Identify specific executive effectiveness factors;

    (b)   Identify appropriate assessment methods; and

    (c)   Specify executive effectiveness standards.

(6)   Given a valid assessment of their own executive strengths and weaknesses and a convenient and practical method for identifying appropriate executive development resources, officers will be motivated to develop and aggressively pursue a personal executive development action plan.

(7)   The design, development and implementation of an effective executive self-assessment and development system will require the active support of the Air Force's senior leadership.

(RQ 3.3)   What conceptual models or frameworks can be used to structure and facilitate the process of designing, implementing and maintaining a comprehensive, effective and practical Air Force executive self-assessment and development system?

The analysis presented in Chapter V developed the following conceptual models:

(1)   The design, development, implementation and O&M process;

(2)   Factors affecting effectiveness of the executive self-assessment and development system; and

(3)   Basic cybernetic system model.

(RQ 3.4)   What executive capability/effectiveness factors should be included in the proposed Air Force executive self-assessment and development system?

Chapter V presents a comprehensive listing of executive effectiveness factors. These factors are categorized as:

(1)   Professional military effectiveness factors;

(2)   General leadership and management effectiveness factors; and

(3)   Technical/functional effectiveness factors. Specific technical effectiveness factors need to be developed for each of the Air Force's (39) different functional specialties.

(RQ 3.5)   What operational definitions and measurement technologies should be used to assign values to the capability/effectiveness factors incorporated in the proposed Air Force executive self-assessment and development system?

(1)   A large number and wide variety of measurement instruments have been developed which can be used to assess officers on the respective executive effectiveness factors included in the system. These instruments also vary widely in their validity, reliability, precision, objectivity, convenience and cost.

(2) Chapter V presents self-assessment instruments, derived from the conceptual model developed in Chapter III, designed to facilitate the introspective evaluation of professional military effectiveness factors, general leadership and management effectiveness factors, and specific technical/functional effectiveness factors.

(RQ 3.6) What executive development resources are available to improve performance on the respective capability/effectiveness factors incorporated in the proposed Air Force executive self-assessment and development system?

(1) The development of executive expertise can be accomplished through education and training or by appropriate vocational experience.

(2) A large number and wide variety of education/training programs are available to develop respective executive effectiveness factors. These include:

(a) Professional military education programs;

(b) Advanced degree programs; and

(c) Professional continuing education courses.

These education/training programs and courses are offered by the Air Force, other Department of Defense schools, and by civilian institutions.

(3) The individual officer, the officer's supervisor/commander and the Air Force (as an institution) share the responsibility for providing the

officer with the opportunity to acquire the variety of professional military, general leadership and management, and technical/functional experience. Other programs, e.g., Education With Industry, are also available to help the officer acquire the experience necessary to be effective at the executive level.

(RQ 3.7)   What factors should be considered in operationalizing and implementing the proposed Air Force executive self-assessment and development system and in operating and maintaining that system after it has been implemented?

(1)   Development of the proposed system:

(a)   Must specify the responsibilities of all concerned agencies;

(b)   Will require the involved support of the Air Force's senior leadership;

(c)   Will involve a significant commitment of resources;

(d)   Will require the identification of specific executive effectiveness factors, related standards, associated assessment methods and appropriate development resources and technologies;

(e)   Must include systematic testing and evaluation of the proposed system before it is fielded; and

(f)   Involves selection of an appropriate medium on which to produce and distribute the system.

(2)   Successful implementation of the system will depend on how well it can be "marketed" to Air Force officers.

(3) To remain viable, the proposed Air Force executive self-assessment and development system must be periodically reviewed and modified to ensure that appropriate executive effectiveness factors, assessment methods, performance standards and development resources are included in the system.

<u>(RQ 4.2)</u> <u>What specific actions should the air force take to improve the</u> <u>systematic assessment and development of executive capabilities,</u> <u>qualifications and effectiveness in its officers?</u>

Recommendation 1

The Air Force should replace its existing officer professional development system with one that is based on a systematic, comprehensive, valid, reliable and objective assessment of each officer's respective strengths and weaknesses relative to those specific capabilities, qualities and qualifications that the Air Force believes are actually required to perform effectively at particular levels of authority and responsibility, e.g.:

(1)   Tactical/technical level (company grade officers);

(2)   Operational/middle management level (majors and lieutenant colonels);

(3)   Strategic/executive level:

(a) Colonels

(b) General officers

Existing officer performance reports (Air Force Forms 71, 78, 707A and 707B), as currently structured, are not adequate as assessment instruments for the purpose of professional development.

Recommendation 2

The Air Force should include as an integral component of its officer professional development system a *comprehensive* executive self-assessment and development program designed, developed and implemented in

accordance with the process and criteria described in Chapter V of this report. Briefly, this proposed system would involve:

(1)   Determining the specific capabilities, qualities and qualifications (i.e., executive effectiveness factors) required by senior Air Force officers to perform effectively in executive-level positions;

(2)   Identifying an appropriate self-assessment method or instrument for each executive effectiveness factor;

(3)   Specifying objective standards (for each executive effectiveness factor) to provide a basis for officers to assess their respective strengths and weaknesses; and

(4)   Identifying available methods and resources officers can use to develop specific professional capabilities, qualities and qualifications.

Recommendation 3

The Air Force should develop for each officer a personal "professional development action plan" that is based directly on a systematic, comprehensive and objective assessment of the officer's capabilities, qualities and qualifications to perform effectively at the executive level. This assessment should include the officer's own self-assessment (reference Recommendation 2), as well as written performance reports and other feedback from supervisors/commanders. This action plan should be jointly reviewed and updated by the officer and his/her supervisor or commander as often as necessary, but at least annually. For each executive effectiveness factor which the assessment process indicates the officer needs further development, the action plan should indicate the specific education/training course, assignment or other action to be taken

to develop the officer and the proposed/required timing of that development action. This action plan should be included in each officer's official record.

Recommendation 4

The Air Force should consider developing a separate officer performance report for colonels. This report should be structured to recognize the inherent differences in the level of authority, responsibility, scope and complexity of executive-level positions to which colonels are normally assigned, compared with subordinate field grade officer positions. It should also be structured to assess the colonel's strengths and weaknesses relative to the specific capabilities, qualities and qualifications required to perform effectively at the general officer level.

Recommendation 5

The Air War College should restructure its Executive Assessment and Development course to:

(1)   Include a comprehensive conceptual framework (such as suggested in this study) designed to make the course more directly relevant to improving executive effectiveness;

(2)   Incorporate a more comprehensive assessment package, i.e., one that assesses more executive effectiveness factors than (just) personality type and health/fitness.

(3)   Include a comprehensive review of available executive development resources and methods;

(4)　　Include the requirement for student officers to develop a realistic "professional development action plan" which considers (e.g.):

　　　　(a)　　The comprehensive self-assessment;

　　　　(b)　　Available executive development resources and methods; and

(5)　　Be applicable to the Air War College's non-resident programs, i.e., the seminar and correspondence programs.

Recommendation 6

The Air Force should conduct or sponsor the follow-on research efforts recommended in the following section (RQ 4.3).

(RQ 4.3)   What follow-on related research should be accomplished?

Recommendation 1

The Air Force should accomplish or sponsor comprehensive, empirical research directed at identifying those specific capabilities, qualities and qualifications generally required for effective performance at the executive level in Air Force organizations.   Such research should begin with an empirical validation of the executive effectiveness factors included in the conceptual model developed in this study and presented in Chapter III.   The results of such research should then be systematically and rigorously compared with the results of similar research targeted at subordinate levels in Air Force organizations.   Such a comparison would be intended to more rigorously determine the actual variance in the essential nature of executive- and subordinate-level jobs and those capabilities, qualities and qualifications actually required to perform effectively at each level. Understanding any significant differences that actually exist in the factors affecting performance at respective organizational levels in the Air Force is essential to both the professional development and promotion processes.

Recommendation 2

Research also needs to be conducted into identifying those capabilities, qualities and qualifications which the Air Force actually values and considers in selecting officers for executive-level assignments. Specifically, policy-capturing research should be accomplished which identifies those decision criteria and associated standards actually used by promotion boards in selecting officers for promotion to the ranks of (at

least) colonel and brigadier general. The decision criteria identified through such research should then be compared with the results of the research described in Recommendation 1. Research by Luthans, et al. in private-sector organizations suggests that the factors associated with (rapid) promotion can be significantly different from those factors which actually influence performance effectiveness at the level to which the person is being promoted.(115) In effect, this research would be designed to validate the promotion selection process, i.e., to ensure the Air Force is actually selecting for promotion those officers who are really best qualified and prepared to perform effectively at the executive level.

Recommendation 3

Additional research is required to identify in a more rigorous, systematic and comprehensive fashion those capabilities, qualities and qualifications that will be required at the executive level in Air Force organizations in the future, e.g., during each of the next three decades. The results of such a forecast could be used to better direct the professional development of those officers who must be prepared for executive-level assignments at those respective future phase points.

Recommendation 4

Extensive research is required to identify for each executive effectiveness factor (identified/validated through the research proposed in Recommendation 1) assessment/measurement methods and instruments which are valid, reliable, accurate, objective, convenient to use, and easy to

interpret. In particular, the self-assessment instruments proposed in Chapter V (Figures 5-8, 5-9 and 5-10) need to be empirically validated.

APPENDIXES

APPENDIX   A

EXECUTIVE
DEVELOPMENT
PROGRAMS

University of California - Berkeley, Berkeley Business School: "The Executive Program":

Theme 1: Changing competitive environments - economic, political, technological, and competitive change in global, national, industrial and other markets - and how they concretely affect any firm and any executive in terms of new markets, new rivals, and new suppliers, and major changes in existing ones.

* Overviews of the global political economy

* Driving global forces - capital, trade, technology, and population flows

* Comparative country and company analyses

Theme 2: Strategy formulation and the complex integrative nature of general management in changing competitive environments.

* Business strategy formulation

* How to take technological and other innovation to market

* Comparative Japanese and U.S. business strategy

Theme 3: Strategy implementation and functional management: state-of-the-art developments in the use and integration of the major functions in changing competitive environments.

* Manufacturing and operations management

* A comparative approach to marketing

* Finance and the chief financial officer

* Accounting as a corporate asset and obstacle

Theme 4: Strategy implementation and the process of management: leadership and the management of human resources and organizational behavior in changing competitive environments.

* Leadership and institutional renewal

* Human resources management

* The management of uneven organization evolution

Carnegie Mellon University. Graduate School of Industrial Administration:
"Program for Executives":

Program Goals:

*   To increase \analytical, communication and leadership skills;

*   To provide an understanding of all the functional areas of the enterprise, and the relationships among them;

*   To expand understanding of the role of business in society; and

*   To enable participants to ask the right questions, in order to continue to learn in a changing marketplace.

Program Contents:

*   Accounting and financial management
     -    financial statement analysis
     -    optimal capital structure
     -    transfer pricing
     -    inflation accounting
     -    decentralization
     -    portfolio theory
     -    capital investment under risk
     -    financing international operations
     -    foreign direct investment decisions

*   Economics and the business environment
     -    productivity
     -    taxation and labor supply
     -    political economy of regulation and social welfare
     -    governments and business
     -    the effect on business of foreign policy
     -    worldwide restrictive trade practices

*   Human behavior and organizational effectiveness
     -    managing human behavior in individuals
     -    managing human behavior in groups
     -    managing human behavior in the organization
     -    nutrition and health
     -    stress management

*   Technology and management
     -    operational processes in service and manufacturing industries
     -    productivity programs
     -    quality assurance
     -    technological change
     -    management and labor relations in a changing environment

*   Marketing
-      product line management
-      market segmentation
-      pricing strategy
-      sales management
-      advertising and promotion
-      distribution channels
-      marketing mix

*   Management of competitive strategy and global competition
-      market research
-      buyer behavior
-      new product development
-      market segmentation
-      promotion and pricing
-      value added analysis
-      strategic groups
-      mergers and acquisitions
-      economies of scope in multiproduct firms
-      the management of technological advantage

*   Communication skills

Program Contents:

* Individual and organizational productivity:
    - an action plan for achieving personal excellence in management
    - power and organizations
    - measuring and improving organizational productivity and quality
    - organizing for world competition
    - leadership: power in practice
    - pitfalls in decision making
    - leadership and the psychology of mind control
    - applications of decision research
    - forms of corporate entrepreneurship
    - understanding how technologies change
    - innovation and the product champion

* Operational decision making:
    - an overview of financial accounting
    - fundamental business strategies
    - financial accounting as an aid to decision making
    - an introduction to decision making under uncertainty
    - computer-aided decision making
    - relevant costs in management control and decisions
    - forecasting for different time horizons
    - budgeting and transfer pricing
    - incentive systems
    - management accounting

* Social and economic environment:
    - national accounts, monetarists,, Keynesians and supply-siders
    - the current economic situation
    - resolving environmental disputes
    - the Presidency, the Constitution and foreign policy
    - the significance of world and regional demographic trends
    - international trade and finance
    - the Soviet Union today and the challenge for the future

* Managerial finance:
    - the time value of money and capital
    - the stock market crash
    - options: applying the theory
    - a review of basic elements of capital budgeting
    - the cost of capital
    - capital structure and dividend policy
    - the portfolio theory and CAPM
    - financial markets and corporations
    - foreign exchange instruments
    - measuring and evaluating business performance

- mergers and acquisitions
- the psychology of the stock market

* Market planning and strategy formulation:
  - manufacturing strategy
  - structural analysis in industries
  - an overview of marketing strategy
  - market research for new products
  - finance strategy
  - strategic management principles for the 1990s
  - major business issues for the next decade

* Communication skills

* Estate planning

* Computers and automation

* Executive health and fitness

Dartmouth College, The Amos Tuck School of Business Administration: "Tuck Executive Program":

Objectives:

*   Broaden executives' understanding of their roles as managers;

*   Improve their analytical and decision-making skills; and

*   Increase their understanding of the special function and responsibility of business in society.

Program Contents:

*   Strategy formulation and implementation:
     -    management values
     -    global strategies
     -    role of organization structure in strategy implementation

*   Organization design and leadership:
     -    Leadership styles
     -    Personality

*   Financial management, accounting and control
     -    profitability vs cash flow
     -    capital structure planning
     -    cost analysis
     -    the cost of capital
     -    innovative financing techniques
     -    accounting for corporate acquisitions
     -    leveraged buyout

*   Marketing and operations management
     -    market definition and segmentation
     -    buyer behavior and buyer-seller relationships
     -    price, product and distribution strategies
     -    financial implications of marketing strategy
     -    product quality
     -    coordination of multiple plant locations
     -    the effect of a rapidly changing competitive and economic environment on operations

*   The economic environment
     -    the federal budget
     -    corporate responsibility and business ethics

Duke University. The Fuqua School of Business: "The Duke Advanced Management Program" and "The Duke Program for Manager Development":

Program Objectives:

*   Increase understanding of the need for close integration of functional areas of marketing, manufacturing, human resources, technology, R&D, and financial resources; and

*   Increase understanding of the competitive forces that impact on achieving corporate goals.

Program Contents:

*   The external environment
-    economic trends in the U.S.A. and the world
-    impact of trends in monetary and political policies
-    government relations and public affairs
-    environmental scanning and issues management

*   Competitive dynamics
-    market opportunities and competitive realities
-    relating industry structure to nature of competition
-    analyzing competitive dynamics and anticipating response
-    *employing strategy as a sustainable competitive* advantage

*   Managing the marketing interface
-    marketing in a dynamic business context
-    creating a marketing oriented environment
-    defining the marketing organization and its mission
-    assessing the strategic role of marketing
-    integration of market strategies with corporate strategies
-    evaluating strategic options
-    portfolio planning
-    evaluating mergers and acquisitions

*   Managerial leadership for executives
-    creating high performance teams
-    negotiation skills for executives
-    conflict resolution and dispute management
-    networking relationships with customers, peers and employees
-    motivation and leadership concepts
-    entrepreneurship at the business unit level
-    power and politics within organizations

*   Strategic decision making under risk and uncertainty
-    decision making in a complex environment
-    assessment of uncertainty
-    quantification of risk
-    computer application to decision making

- conduct of "what if" analysis
- decision analysis for appropriate response

* Financial concepts for executives
  - analysis of corporate financial reports
  - strategic financial planning
  - management of capital expenditures
  - achievement of required return on investment
  - risk analysis and risk reduction

* Productivity and technology
  - productivity improvement programs
  - work force management strategies
  - management of technology and innovation
  - issues in facilities management

* Global competitiveness
  - increased globalization
  - multinational enterprises
  - U.S. in the international economy

* Managerial implications of regulation
  - role of government regulation
  - effects upon firms
  - opportunities for influence
  - competitive consequences
  - understanding bureaucratic behavior
  - strategic use of regulatory process

* The expanded role of the corporate manager
  - contributing to the top management decision-making process
  - identifying critical success factors
  - managing change in the corporate culture
  - vision

* Service management
  - meaning and management of service quality
  - managing perceptions of quality
  - achieving a customer-driven focus
  - communicating quality customers

Emory University, The Emory Business School: "The Advanced Management Program":

Program Objectives:

*   Increase insight into the challenges of working in an ever more international and competitive environment;

*   Broaden managerial strategic perspectives and increase leadership skills;

*   Expand knowledge of a range of specific functional areas such as management, accounting, finance and marketing;

Program Contents:

*   Thinking globally:
    -       international finance
    -       international economics
    -       international politics

*   Thinking strategically:
    -       strategic planning and practice
    -       industry and competitive analysis
    -       strategic human resource management

*   Leading and managing others:
    -       personal management style
    -       conflict management
    -       employee motivation
    -       communication skills

*   Executive change:
    -       restructuring the organization
    -       managing stress

Harvard University, Graduate School of Business Administration: "The Advanced Management Program" and "The International Senior Management Program":

Program Contents:

* Functional management: tools and concepts

* Integrating management functions

* Corporate management: the perspective of the CEO

* General management

* Marketing and operations management

* Leadership and organizational behavior

* Management information and control systems

* Financial management

* Political economics

Harvard University, John F. Kennedy School of Government: "Program for Senior Managers in Government":

Program Objectives:

*   Sharpen management skills;

*   Strengthen operational effectiveness;

*   Enhance abilities to define strategic problems and implement policies;

*   Broaden understanding of public-policy decision making; and

*   Analyze and refine individual managerial skills and practice.

Program Contents:

*   Policy development

*   Policy analysis and design

*   Organizational strategy

*   Political management

*   Management control and operations

*   Management of human resources

*   Leadership

<u>University of Illinois at Urbana-Champaign, Executive Development Center:</u>
<u>"The Executive Development Program":</u>

<u>Program Objectives:</u>

*   Develop a better understanding of the increasingly complex business environment;

*   Develop integrative skills and decision-making abilities; and

*   Understand the business implications of a global environment.

<u>Program Contents:</u>

*   Strategic management
    -   the concept of strategy
    -   competitive analysis and competitive advantage
    -   global competition
    -   technology and strategy
    -   operations strategy interface
    -   strategy implementation

*   Financial management
    -   cash flow management
    -   short run financial management
    -   financial analysis and forecasting
    -   capital structure analysis
    -   corporate restructuring
    -   mergers and acquisitions
    -   modern finance theory
    -   portfolio management
    -   stockholder relations
    -   lessons from financial failure

*   Management control and information systems
    -   management information systems
    -   essentials of management control
    -   profit planning and budgeting
    -   cost analysis and pricing strategies
    -   internal performance measurement

*   Marketing
    -   marketing strategy and tactics
    -   segmentation strategies
    -   marketing mix decisions
    -   product/service marketing
    -   buyer behavior
    -   pricing strategies
    -   marketing between organizations

*   Human resource management
    -    organizational development
    -    management of change
    -    corporate culture
    -    performance appraisal
    -    executive development
    -    stress management

*   The external environment
    -    national economic performance
    -    government stabilization policy
    -    legal and regulatory environment
    -    comparative economic systems

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<u>Indiana University, Graduate School of Business: "Indiana Executive Programs":</u>

<u>Program Objectives:</u>

*   Illustrate the complex interrelationships that exist among the management of people, organizational structure, and organizational change;

*   Relate the importance of internal and external environmental factors to the management process; and

*   Develop knowledge and skill in communication and leadership effectiveness.

*   Develop a strategic view of a business and its competitive environment

*   Illustrate success factors in achieving sustained organizational effectiveness

*   Stimulate discussion on key management issues of the 1990s

<u>Program Contents:</u>

*   Management of people
    -       personality and stress
    -       organizational citizenship behavior
    -       performance appraisal
    -       succession planning
    -       legal issues in human resource management

*   Leadership effectiveness
    -       skills required of the effective manager
    -       managing conflict in organizations
    -       managing change
    -       managing group dynamics
    -       employee satisfaction, performance and motivation

*   Organization cultures and cycles
    -       cross-cultural management
    -       managing organizational cultures
    -       the organizational cycles model
    -       entrepreneurship
    -       corporate takeovers and buyouts

*   Managerial decision making
    -       managerial decision-making tools
    -       forecasting techniques and the personal computer
    -       group decision making

*   Managerial communication
        -       techniques of effective media presentation
        -       development of video presentations

*   Financial management
        -       accounting as a language of finance
        -       sources of financial information
        -       financial strategies embodied in reported results
        -       shareholder value: creation, transfer and destruction
        -       financial impact of operating decisions
        -       capital expenditure analysis
        -       financial planning and strategy

*   The enterprise system
        -       development of the market system in the Western world
        -       functioning of the micro enterprise system
        -       functioning of the macro enterprise system
        -       supply side, demand side, and monetarist views and solutions
        -       economic growth

⸱   Strategic planning
        -       formulating business strategy: defining current strategy,
                assessing the environment, and conducting the internal audit
        -       implementing business strategy

*   Marketing
        -       strategic market planning
        -       market segmentation analysis
        -       product life cycle strategies
        -       customer strategy

*   Manufacturing
        -       organizing and evaluating a production system
        -       relationship between business and production strategy
        -       management of service functions

*   Global environment
        -       historical view of world economic conditions
        -       economic trends
        -       variables and problems in identifying business opportunities
        -       cultural and social factors in market penetration

*   Legal environment
        -       how law shapes business decisions
        -       a historical perspective of U.S. law and capitalism
        -       product liability, agency law and antitrust

*   Economic environment
        -       economic policy in the 1980s
        -       economics trends versus economic cycles
        -       the factors leading to economic growth

* Organizational effectiveness
  - external threats to performance
  - the influences of organization structure on decision making
  - negotiation strategies

Massachusetts Institute of Technology, Sloan School of Management: "The MIT Program for Senior Executives"

Program Objectives:

* To provide a deeper knowledge of trends in society and the world economy, and the forces behind them;

* To develop familiarity with the results of recent research of relevance to management and executive decision-making, and to enhance ability to tap that resource in the future;

* To improve problem solving ability and strategic thinking, through the integration of judgment, knowledge of the world, and the best available analytic techniques;

* To develop more profound understanding of a diversity of values, behavior and lifestyles, and increase capacity to manage different types of individuals in varying organizational and cultural settings;

* To provide an opportunity to reflect on the challenges and opportunities faced by the participant's own organization, and one's own career and future goals.

Program Contents:

* The external environment
    - economic issues and analysis
    - issues in public policy

* Policy and strategy
    - corporate strategy, policy and planning
    - international dimensions of strategy

* Management support systems
    - managerial accounting and control
    - information systems and technology
    - operations management
    - corporate finance
    - marketing

* Organizational change
    - transforming human resource policies
    - management of organizational change
    - human resource planning and development

* Dimensions of the executive career
    - organization studies workshop
    - power and responsibility
    - career anchors
    - career and family

University of Michigan, School of Business Administration: "The Executive Program"

Program Objectives:

*   Enhance the executive's strategic decision-making ability

*   Provide an interdisciplinary perspective that considers issues beyond one's own function, and an international scope that integrates markets, competition, and organizational issues

*   Analyze the related issues and investigate the action plans pertinent to individual organizations

Program Contents:

*   Corporate strategy

*   Financial analysis

*   Economics

*   Strategic marketing planning and management

*   Human resource management

*   Transformational leadership

*   Information and decision technology

University of New Hampshire, The Whittemore School of Business and Economics: "Executive Development Program":

Program Objectives:

* Strengthen participants' broad decision-making capabilities;

* Develop human and resource management skills;

* Improve abilities to analyze and evaluate change and to develop strategies for intelligent management of change;

* Improve understanding of the political, economic and social environment in which the enterprise operates;

* Help specialists become generalists and enlightens and enlarges comprehension of the challenge that directing, coordinating and developing an enterprise entails.

Program Contents:

* Managerial accounting and finance
    - corporate performance assessment through analysis of financial reports
    - asset valuation
    - income measurement
    - funds flow
    - financial risk, return and value
    - management of working capital and corporate liquidity
    - discounted cash flow
    - capital budgeting techniques
    - capital structure and financial leverage decisions
    - cost of capital
    - dividend policy

* Human resource development
    - inspiring others
    - developing subordinates
    - understanding the use of power
    - creating a constructive climate
    - making decisions
    - group dynamics skills
    - negotiation skills
    - stress management
    - diagnosing change and working with resistance to change
    - long-range planning

* Operations management
    - capacity planning
    - inventory management
    - material requirements planning

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- information systems
- productivity improvement

* Marketing
  - market segmentation
  - product policies
  - channels of distribution
  - sales management policy
  - consumer behavior and consumerism
  - industrial marketing techniques
  - effects of a changing economy
  - evaluation of marketing performance

* Formulating and implementing plans and strategies
  - long-range view of the national economy
  - the impact of international economic developments on
  U.S. businesses
  - the effects of governmental fiscal policy and regulation
  - acquisitions and mergers
  - corporate culture
  - strategic planning systems and techniques

<u>Northwestern University, Kellogg Graduate School of Management: "Advanced Executive Program":</u>

<u>Program Contents:</u>

* Understanding the domestic and international economic, political and social environments:
    - the relationship of national goals to U.S. fiscal and monetary policy
    - the international monetary system
    - balance of payments
    - the fragile international financial system
    - the social environment of a political economy
    - trends in world demography
    - environmental forecasting
    - ethical considerations for multinational organizations

* Finance
    - capital structure
    - capital budgeting
    - cost of capital
    - dividend policy
    - financial analysis of mergers and acquisitions

* Accounting
    - cash flow forecasting and planning
    - financial information for decision making
    - decision support systems
    - performance evaluation
    - cost allocations and transfer pricing

* Marketing
    - customer analysis
    - marketing segmentation
    - competitor analysis
    - pricing
    - promotion
    - the nature of market-driven organizations

* Organization behavior
    - organization structure and design
    - corporate culture
    - employee motivation
    - trends in labor relations
    - job design
    - implementation of change
    - leadership
    - boards of directors

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* Operations
    - organizing operations to support strategy
    - technology as a means to gain advantage
    - offshore sourcing versus value-added strategies

* Strategic planning
    - setting objectives
    - defining the business
    - anticipating and influencing the competition
    - the Japanese as competitors
    - generic strategies
    - planning systems

* Coordinating and integrating management functions

* Personal computers

* Health maintenance

<u>Pennsylvania State University, College of Business Administration: "The Executive Management Program"</u>

<u>Program Objectives:</u>

*   Broaden managerial perspective and increase capacity to assume additional general management responsibilities

*   Examine policy problems and strategic planning from an organizational rather than a departmental or divisional point of view

*   Discuss financial analysis techniques for optimal financial management and control and enhanced shareholder value

*   Offer insight into economic, political, and social forces affecting management planning and corporate decision making

*   Improve leadership abilities in working with people at all levels of the organization

*   Provide a broad-based, multifunctional perspective toward formulating and implementing organizational goals and directions

*   Expand understanding of the global business environment and the nuances of conducting business on a global scale

*   Sharpen decision-making abilities by improving qualitative judgments and extending the command of analytic techniques

<u>Program Contents:</u>

*   Strategic management
     -    corporate strategy formulation
     -    competitive strategy
     -    strategy implementation
     -    the global business environment

*   Operational effectiveness
     -    financial planning and control
     -    financial policy
     -    quality and productivity
     -    the economic environment

*   Multidimensional thinking
     -    context of general management
     -    international business and finance
     -    business/government interface
     -    business and society interface

* Network building
    - the multicultural organization
    - leadership and organizational development
    - the challenge of the future

* Executive presentation skills

* Executive fitness program

<u>University of Pittsburgh, Joseph M. Katz Graduate School of Business: "The</u>
<u>Management Program for Executives"</u>

<u>Program Objectives:</u>   To develop leaders for the 21st Century who:

*   think strategically

*   advocate needed organizational change

*   support teamwork and employee growth

*   are confident operating in a dynamic global marketplace

*   are knowledgeable about emerging technology

*   are risk taking, innovative and creative

*   at the organization level:
     -    have a global perspective
     -    think strategically
     -    are sensitive to the environment

*   at the group level, can effectively fill the following roles:
     -    leader
     -    collaborator
     -    analyzer
     -    innovator

*   at the individual level, builds:
     -    interpersonal skills
     -    communications skills
     -    functional competence

<u>Program Contents</u>

*   Strategic leadership
     -    an integrative, strategic model
     -    adapting to environmental and competitive shifts
     -    understanding the leadership role
     -    administrative systems for execution of strategic plans
     -    restructuring diversified companies

*   Human resources management / organizational behavior
     -    executive self assessment
          --   leadership style
          --   interpersonal style
          --   stress management
     -    management team building
     -    managing and rewarding employees
     -    role of the general manager in human resource
          and organizational development

- assessment of the impact of corporate culture and the need for renewal or change

* Global business
  - the impact of foreign investment and currency exchange rates
  - facing expanding foreign competition
  - how service industries can cope with global challenges
  - strategies for global competitiveness

* Corporate environmental influences
  - socio-economic policies, problems and projections
  - macro-economic issues:
    -- fiscal and monetary policy
    -- bases for measuring and improving productivity
  - implications of budget and trade deficits
  - government policies designed to influence GNP, inflation and employment
  - ethics

* Marketing management
  - marketing's role in the firm
  - market segmentation
  - dynamics of unit costs and market prices over the product life-cycle
  - selecting marketing strategies
  - marketing strategies in service businesses
  - global marketing strategies

* Financial management and control
  - evaluating financial health
  - evaluating strategies based on the impact of time/risk on cash flows
  - working capital management
  - essentials of capital budgeting
  - mergers and acquisitions
  - international integration of financial capital markets
  - framework for a management control system

* Managing technology and information
  - information resource management
    -- office automation
    -- telecommunications
    -- computer-integrated manufacturing
    -- expert systems
  - decision making
    -- design/development of manufacturing/operating systems
    -- simulations and linear programming
    -- production, inventory and quality management techniques

<u>Stanford University, Graduate School of Business: "Stanford Executive Program"</u>

<u>Program Objectives:</u>

* Provide a basic understanding of the functional areas of business, including finance, accounting and marketing

* Broaden the managerial perspective, improving understanding of the complex and integrative nature of general management

* Increase insight into the nature of the management process, advancing understanding of organizational behavior and leadership theory

* Sharpen decision-making ability by improving both qualitative and quantitative judgment through modern methods of analysis

* Examine the impact of the national and international environment and changing social, political and economic factors in the success of the modern enterprise

* Stimulate fresh thinking through exposure to new ideas

* Encourage reexamination of personal goals, values and purposes

<u>Program Contents:</u>

* Business policy and management
    - identifying key ingredients in meeting objectives
    - examination of structures for implementation
    - evaluation of an organization's total environment
    - strategic planning techniques
    - managing the multi-business company
    - entrepreneuring in the established company
    - resolving conflicts through successful negotiation

* The international economy
    - international capital markets
    - prospects for trade and development
    - changing roles of Europe, the USA, and Japan
    - exchange rates

* Accounting
    - financial accounting for managers
    - analysis of cost-volume relationships
    - profit planning and budgeting
    - cost allocation and transfer pricing
    - divisional performance measurement
    - essentials of cost analysis and pricing

*   Quantitative analysis and computers
    -   essentials of managerial-related mathematical models
    -   role of analysis and quantitative approaches in decision making
    -   analysis of managerial decision support systems

*   Organizational behavior
    -   motivation and cognition
    -   interpersonal communication
    -   personal leadership
    -   effective use of small groups
    -   alternative people policies

*   Current economic conditions
    -   analysis of macroeconomic trends
    -   causes of economic growth and fluctuation
    -   domestic capital and money markets

*   Marketing management
    -   marketing objectives and strategy
    -   product development and pricing
    -   advertising, merchandising and promotional techniques
    -   sales management and organization
    -   understanding and forecasting market behavior

*   Financial management
    -   financial analysis and forecasting of financial position
    -   working capital management
    -   formulating capital expenditure policies
    -   choices among debt and equity financing
    -   relationships with the suppliers of capital
    -   analysis of financial risk
    -   financial planning and growth

*   Business in a changing environment
    -   roles of business in a mixed economy
    -   public opinion, interest groups, and corporate operations
    -   corporate political and public strategies
    -   analysis of corporate responsibilities
    -   role of government regulation
    -   ethical analysis

*   Communication skills

*   Executive health and fitness

Program Objectives:

*   Improve understanding of resource, socioenvironmental and stakeholder issues related to strategy

*   Improve effectiveness at:
-    human resources management
-    organization
-    using systems and controls
-    financial management and economics

Program Contents:

*   Human resources and organization
-    management strategies
-    organizations and culture
-    human resource planning and organization
-    power and the political system in the organization
-    corporate political strategy
-    international sociopolitical strategy

*   Controls and accounting
-    financial analysis and controls
-    legal and regulatory environment
-    operational controls
-    management information systems

*   Finance and marketing
-    corporate financial strategy
-    the monetary system and fiscal practices
-    international financial strategy
-    marketing concepts and strategy
-    international marketing strategy

*   Technology and problem solving
-    the technological environment
-    competitive and industry analysis
-    solving management problems
-    strategic management
-    strategies for managing change

*   Executive pressures
-    business ethics
-    executive stress
-    corporation and personal protection

*   Executive fitness

*   Personal computers

University of Virginia, Graduate School of Business Administration: "The Executive Program"

Program Objectives:

*   Improving the executive's effectiveness at:
    -   Analyzing and selecting strategies for competitive advantage
    -   Evaluating value-added plans for enlarging the assets of the business
    -   Building functional relationships and management systems for creating balanced excellence in all functions
    -   Developing the firm's sensitivities and capacity to anticipate and react to the challenges of a global business environment
    -   Influencing others to manage implementation and change

*   Challenge every participant to stretch his/her ability to deal with a wide range of business problems, both rigorously and realistically

*   Broaden practical understanding of, and ability to deal with, complex, interfunctional business problems

*   Provide new techniques, concepts and workable theories

*   Broaden outlooks on the social, economic, and political climate

*   Sharpen personal capacities for understanding and solving organizational and human relations problems

*   Develop frameworks for the incorporation of ethics and values in the analysis and decision-making process

*   Develop oral and written communication skills

Program Contents:

*   The global environment
    -   economic environment
    -   political environment
    -   balance of payments analysis
    -   national income analysis
    -   inflation
    -   economic growth
    -   the business cycle
    -   monetary and fiscal policy

*   Strategic management and executive behavior
        -      corporate renewal
        -      leadership
        -      strategy analysis
        -      competitive strategies
        -      strategy execution and implementation
        -      environmental, industry and competitor analysis
        -      managing conflict
        -      ethical values
        -      managerial style
        -      change
        -      personal and professional development

*   Marketing and operations management
        -      market analysis
        -      marketing strategy
        -      pricing
        -      advertising
        -      sales
        -      distribution
        -      elements of the operating structure (facilities, capacity, technology and integration
        -      infrastructure elements (workforce management, systems and organization)
        -      productivity and quality improvement

*   Managerial finance, control and information systems
        -      basic concepts/techniques of accounting and corporate finance
              --   financial statement analysis
              --   financial planning
              --   working capital and permanent financing
              --   management control
              --   investment analysis
              --   assessment of managerial performance
        -      using information systems
              --   strategic planning and information technology
              --   organization and structure of the information services function
              --   system implementation

*   Executive health and fitness

APPENDIX B

PERSONALITY PROFILES AND
PROMOTION SUCCESS OF
U.S. ARMY
GENERAL OFFICERS

(W.L. Derrick, 1987)

APPENDIX B-1

BASIC DEMOGRAPHICS

	General Officers (N=163)	Corporate Executives (N=139)	L.D.P. Norm (N=1,002)
SEX			
Male	98%	97%	86%
Female	02%	03%	14%
AGE			
Mean	47	44	41
S.D.	2.4	7.2	8.0
RACE			
American Indian	0%	0%	1%
Black	10%	1%	3%
Asian	1%	1%	1%
Hispanic	1%	1%	2%
White	86%	96%	92%
Other	2%	1%	1%
EDUCATION			
High School	0%	2%	3%
Some College	0%	10%	11%
College	3%	55%	43%
Masters	88%	19%	29%
Doctorate	9%	11%	11%
Other	0%	3%	3%

L.D.P.: Leadership Development Program

APPENDIX B-2

COGNITIVE ABILITY AND PSYCHOLOGICAL INVENTORY INSTRUMENTS

Listed below are the instruments used as part of the Leadership Development Program (LDP) assessment program. Each is briefly described.

Shipley Institute of Living Scale

This is a brief (40 item) measure of cognitive ability. Twenty of the items are devoted to vocabulary while the other twenty assess abstract reasoning. Since it correlates quite well ($r=0.80$) with more extensive measures of intelligence, the Shipley provides a rough index of intelligence quotient (IQ).

The Hidden Figures Test

A second test of cognitive ability, Hidden Figures requires participants to locate complex geometric patterns embedded within larger geometric patterns. Scores indicate the presence of field independence or dependence, a construct which has been related to where people focus (people vs. data) and the use of surrounding context in problem definition and solution.

The California Psychological Inventory (CPI)

Using 480 questions to measure what are termed "folk concepts," the CPI provides a general overview of a person's psychological makeup.

The Myers-Briggs Type Indicator (MBTI)

The MBTI is a personality inventory based upon the work of Carl Jung. Results indicate an individual's preference along four dimensions and specify a composite type. These preferences are useful in understanding managerial work styles.

The Fundamental Interpersonal Relationship Orientation--Behavior (FIRO-B)

This 54-item instrument measures how participants feel and act toward others on the dimensions of Inclusion, Control and Affection.

The Wesley Inventory

Five scores are derived from this 88-item inventory. The first three assess a person's preference for structure in the work environment. The other two scores, known as the Tellegen Research Scales, measure the preference for spontaneity versus orderly planning and the preference for the use of imagination versus pragmatic daily activity.

The Kirton Adaptation Inventory (KAI)

The KAI is a one-scale inventory that gauges a preferred problem-solving orientation: Adaptive or doing things better versus Innovative or doing things differently. Both orientations are deemed creative, albeit in different ways.

The Managerial Job Satisfaction Questionnaire (MJSQ)

Twenty-five questions are used to measure a respondent's degree of satisfaction with five different aspects of the work environment: the work

itself, supervision, pay and benefits, co-workers, and promotion opportunity. An overall job satisfaction index is also reported.

The Strong-Campbell Interest Inventory (SCII)

This vocational interest inventory of 325 questions is used to help a participant clarify his occupational focus and examine his overall occupational profile. Both occupational themes and specific career area interests are reported.

APPENDIX B-3

TESTS OF COGNITIVE ABILITIES

	General Officers (N=162)	Corporate Executives (N=137)	L.D.P. Norm (N=1,477)
SHIPLEY INSTITUTE OF LIVING SCALE			
Mean	124	121	118
S.D.	6.5	6.8	7.1

	(N=161)	(N=137)	(N=1,477)
HIDDEN FIGURES			
Mean	16.4	17.0	15.5
S.D.	6.8	7.8	7.9

THE CALIFORNIA PSYCHOLOGICAL INVENTORY (CPI)

	General Officers (N=159)		Corporate Executives (N=074)		L.D.P. Norm (N=1,471)	
	Mean	(S.D.)	Mean	(S.D.)	Mean	(S.D.)
Dominance	68.1	(7.8)	65.5	(8.4)	62.0	(9.8)
Capacity for Status	54.3	(8.4)	56.8	(7.4)	54.0	(8.5)
Sociability	54.5	(8.9)	54.6	(9.4)	53.0	(9.4)
Social Presence	54.5	(11.05)	57.3	(11.2)	56.0	(10.4)
Self-Acceptance	62.0	(7.6)	61.8	(8.7)	60.0	(9.3)
Sense of Well-Being	55.1	(7.6)	53.5	(9.7)	52.0	(8.8)
Responsibility	53.9	(7.4)	50.1	(7.7)	49.0	(8.5)
Socialization	52.8	(7.6)	50.0	(7.3)	49.0	(8.8)
Self-Control	49.9	(7.6)	47.6	(6.9)	49.0	(8.7)
Tolerance	53.5	(7.4)	51.9	(8.7)	53.0	(8.1)
Good Impression	51.5	(9.0)	`48.7	(8.5)	48.0	(9.3)
Community	57.6	(5.0)	56.6	(5.8)	54.0	(7.5)
Achievement Via Conformance	58.9	(7.5)	57.0	(7.7)	55.0	(8.1)
Achievement Via Independence	57.6	(8.5)	57.9	(8.1)	59.0	(8.5)
Intellectual Efficiency	52.1	(8.5)	53.4	(8.1)	53.0	(9.2)
Psychological MIndedness	56.0	(8.1)	56.8	(9.1)	58.0	(9.3)
Flexibility	49.3	(9.0)	51.2	(9.2)	54.0	(10.6)

APPENDIX B-5

MYERS-BRIGGS TYPE INDICATOR SCORES

Percentages
Means
(Standard Deviations)

	General Officers (N=161)	Corporate Executives (N=074)	L.D.P. Norm (N=1,409)
Extroversion/Introversion	49.7/50.3 -1.1 (26.1)	- ** -1.1 (28.2)	46.9/50.4 1.3 (-)
Sensing/Intuition	71.4/28.6 -16.5 (30.6)	- -8.1 (26.6)	50.9/49.1 -2.7 (-)
Thinking/Feeling	87.6/12.4 -26.4 (22.3)	- -25.6 (22.0)	78.7/21.3 -20.0 (-)
Judging/Perceiving	79.5/20.5 -22.1 (25.0)	- -13.1 (26.5)	70.3/29.7 -12.9 (-)

** Data not available

APPENDIX B-6

PERCENTAGE DISTRIBUTION FOR THE MYERS-BRIGGS COMPOSITE TYPES

	General Officers (N=161)	Corporate Executives (N=111)	L.D.P. Norm (N=1,409)
ISTJ	28	26	21
ISFJ	03	0	03
INFJ	01	01	02
INTJ	09	08	11
ISTP	05	05	04
ISFP	01	01	01
INFP	01	03	03
INTP	03	04	06
ESTP	04	04	03
ESFP	01	04	01
ENFP	02	0	06
ENTP	03	06	07
ESTJ	28	20	15
ESFJ	03	03	03
ENFJ	01	01	03
ENTJ	07	15	12

APPENDIX B-7

THE FUNDAMENTAL INTERPERSONAL RELATIONSHIP ORIENTATION - BEHAVIOR
(FIRO-B)

DIMENSION	General Officers (N=161) Mean (S.D.)	Corporate Executives (N=111) Mean (S.D.)	L.D.P. Norm (N=1,409) Mean (S.D.)
INCLUSION:			
Expressed	4.1 (2.3)	4.1 (2.0)	3.6 (2.1)
Wanted	3.0 (3.3)	3.4 (3.4)	2.8 (3.1)
AFFECTION:			
Expressed	3.2 (2.3)	2.7 (1.8)	3.0 (1.9)
Wanted	4.7 (2.4)	5.1 (2.1)	4.8 (2.1)
CONTROL:			
Expressed	6.2 (2.6)	5.4 (2.5)	4.6 (2.6)
Wanted	3.0 (2.1)	2.9 (1.8)	3.0 (1.9)

DESCRIPTIVE STATISTICS FOR THE WESLEY INVENTORY, TELLEGEN RESEARCH SCALES AND THE KIRTON ADAPTATION INVENTORY

	General Officers (N=160)	Corporate Executives (N=074)	L.D.P. Norm (N=1,511)
	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
WESLEY INVENTORY			
Persistence	3.3 (3.9)	2.5 (3.7)	2.1 (4.2)
Slow, Steady Method	-1.4 (3.9)	-1.8 (3.9)	-2.4 (3.8)
Established Routine	-1.2 (2.0)	-1.4 (1.9)	-1.4 (2.2)

TELLEGEN RESEARCH SCALES	(N=105)		(N=1,511)
Impulse/Control	6.3 (3.7)	-	6.2 (3.7)
Absorption/Fluidity	16.8 (7.9)	-	18.2 (8.3)

KIRTON ADAPTATION INVENTORY (N=1,511)	(N=152)	(N=074)	
Innovation/Adaptation	I 4.6 (15.5)	I 7.7 (18.0)	I 8.6 (15.8)

APPENDIX B-9

MANAGERIAL JOB SATISFACTION QUESTIONNAIRE

SCALE	General Officers (N=160) Mean (S.D.)	Corporate Executives (N=074) Mean (S.D.)	L.D.P. Norm (N=1,511) Mean (S.D.)
Work Itself	4.5 (0.6)	4.3 (0.7)	4.2 (0.7)
Supervision	4.6 (0.5)	4.1 (0.8)	3.9 (0.8)
Co-Workers	4.4 (0.4)	4.1 (0.5)	4.1 (0.5)
Pay & Benefits	2.8 (0.8)	3.6 (0.9)	3.2 (0.8)
Promotion Opportunity	4.1 (0.6)	3.7 (0.8)	3.4 (0.8)
Overall Job Satisfaction	4.1 (0.4)	-	3.7 (0.5)

APPENDIX B-10

OCCUPATIONAL THEME SCORES FROM THE STRONG-CAMPBELL INTEREST INVENTORY

THEME	General Officers (N=155) Mean (S.D.)	L.D.P. Norm (N=1,036) Mean (S.D.)
Realistic	55.5 (10.4)	55.0 (11.0)
Investigative	49.2 (10.5)	51.0 (9.4)
Artistic	44.3 (10.7)	47.0 (10.8)
Social	51.1 (9.9)	48.0 (9.7)
Enterprising	53.2 (9.2)	53.0 (9.4)
Conventional	51.8 (9.2)	50.0 (8.6)

BASIC INTEREST SCALE SCORES
FROM THE
STRONG-CAMPBELL INTEREST INVENTORY

	General Officers (N=156)	Corporate Executives (N=138)	L.D.P. Norm (N=1,036)
INTEREST SCALE	Mean (S.D.)	Mean (*)	Mean (S.D.)
Military Activities	71.0 (6.2)	56	56.0 (12.3)
Adventure	58.3 (9.0)	57	54.0 (9.5)
Public Speaking	57.2 (8.1)	55	53.0 (9.6)
Law/Politics	57.2 (7.7)	57	54.0 (9.4)
Business Management	58.7 (8.1)	59	57.0 (8.8)
Social Service	45.5 (9.0)	45	46.0 (9.4)
Music/Dramatics	43.9 (11.2)	46	47.0 (11.3)
Domestic Activities	40.6 (8.9)	42	43.0 (9.9)
Teaching	51.4 (9.7)	47	47.0 (9.9)

* Standard deviations unavailable

ASSESSMENT VARIABLES FROM BEHAVIORAL EXERCISE I - COMPETITIVE

	General Officers (N=154)	Corporate Executives (N=135)	L.D.P. Norm (N=1,036)
ASSESSMENT VARIABLES	Mean (S.D.)	Mean (*)	Mean (S.D.)
Activity Level	38.0 (5.8)	37	36.0 (6.4)
Led the Discussion	36.8 (6.3)	35	34.0 (7.0)
Influenced Others	37.7 (6.3)	36	35.0 (6.7)
Problem Analysis	37.5 (5.3)	37	36.0 (5.7)
Task Orientation	37.4 (6.0)	37	36.0 (5.6)
Motivated Others	33.8 (6.6)	34	33.0 (6.7)
Interpersonal Skills	34.6 (5.5)	33	34.0 (4.9)
Verbal Effectiveness	39.2 (4.5)	38	37.0 (4.9)

* Standard deviations not available

RANKED PERFORMANCE IN BEHAVIORAL EXERCISE I – COMPETITIVE

	General Officers (N=154)	Corporate Executives (N=135)	L.D.P. Norm (N=1,036)
RANKING SOURCE	Mean (S.D.)	Mean (*)	Mean (S.D.)
Staff	2.9 (1.6)	3.4	3.5 (1.6)
Peers	2.6 (1.3)	2.9	3.2 (1.4)
Self	2.8 (1.3)	2.8	3.1 (1.4)

* Lower numbers = more effective / influential

APPENDIX B-14

ASSESSMENT VARIABLES FROM BEHAVIORAL EXERCISE II - COMPETITIVE

	General Officers (N=155)	Corporate Executives (N=135)	L.D.P. Norm (N=1,036)
ASSESSMENT VARIABLES	Mean (S.D.)	Mean (*)	Mean (S.D.)
Activity Level	36.6 (6.1)	37	36.0 (6.0)
Led the Discussion	34.4 (6.8)	35	34.0 (6.5)
Influenced Others	35.6 (7.2)	36	35.0 (6.3)
Problem Analysis	36.1 (6.5)	37	36.0 (5.7)
Task Orientation	36.8 (5.7)	37	37.0 (5.4)
Motivated Others	33.4 (7.2)	34	34.0 (6.3)
Interpersonal Skills	33.7 (4.8)	34	34.0 (4.3)
Verbal Effectiveness	37.6 (5.0)	37	37.0 (4.5)

* Standard deviations not available

APPENDIX B-15

RANKED PERFORMANCE IN BEHAVIORAL EXERCISE II - COMPETITIVE

	General Officers (N=155)	Corporate Executives (N=135)	L.D.P. Norm (N=1,036)
RANKING SOURCE	Mean (S.D.)	Mean (*)	Mean (S.D.)
Staff	3.2 (1.6)	3.4	3.5 (1.6)
Peers	3.0 (1.3)	2.9	3.3 (1.4)
Self	3.0 (1.4)	2.9	3.3 (1.4)

* Lower numbers = more effective / influential

APPENDIX   C

MINTZBERG'S STUDY OF
MANAGERIAL WORK

(H. Mintzberg, 1973)

INFLUENCE DIAGRAM OF MINTZBERG'S CONTINGENCY VIEW OF MANAGERIAL WORK

ENVIRONMENTAL VARIABLES

* Society

* Industry

* Organization

JOB VARIABLES

* Level of the job

* Function being
  managed

BASIC MANAGERIAL
ROLE REQUIREMENTS

ONE
MANAGER'S
WORK

PERSON VARIABLES

* Personality and
  style and
  characteristics

BASIC CHARACTERISTICS
OF MANAGERIAL WORK

SITUATIONAL VARIABLES

* Temporal features
  of an individual
  job
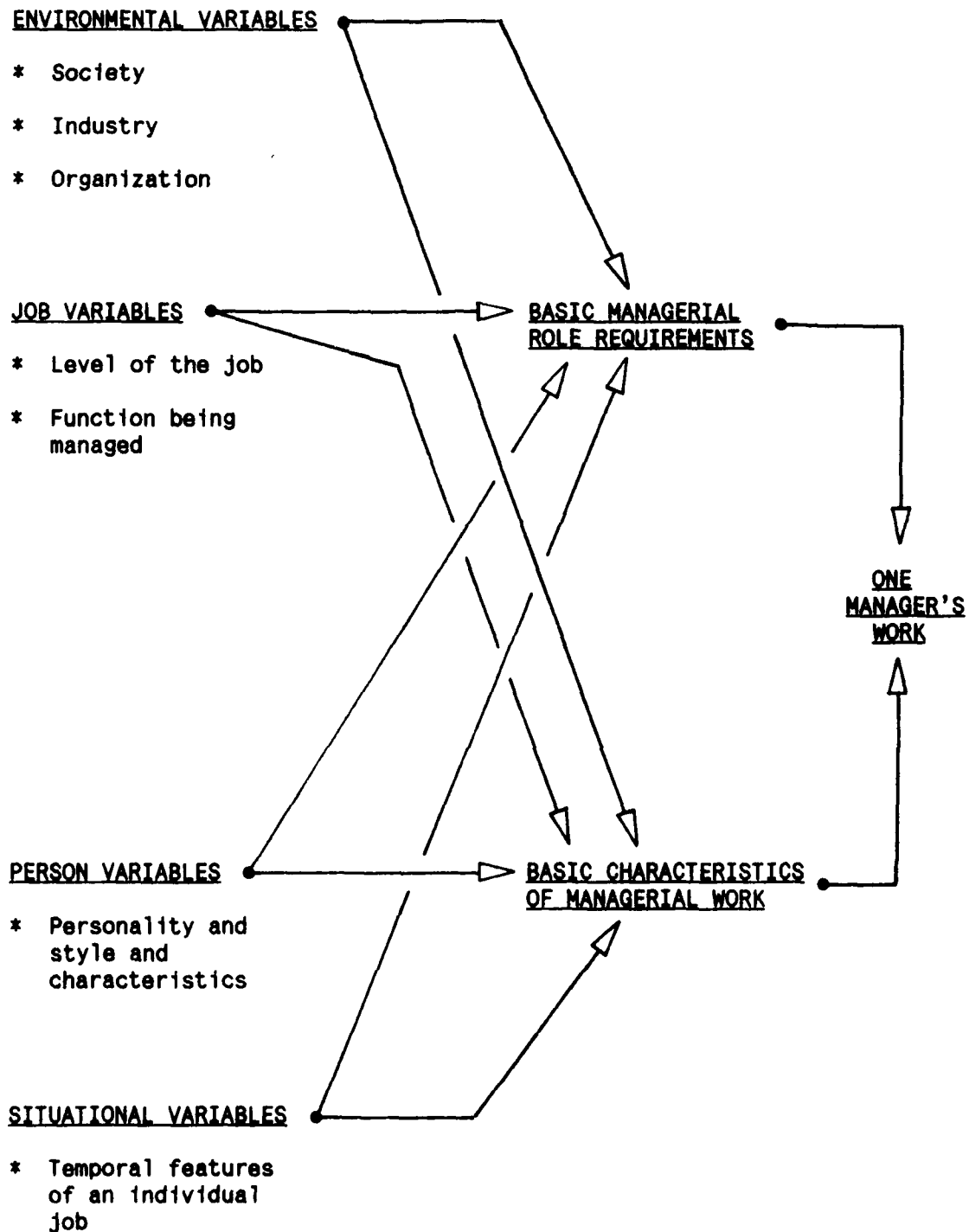
APPENDIX C-2

GENERAL CONCLUSIONS

1. Managers' jobs are remarkably alike. The work of foremen, presidents, government administrators, and other managers can be described in terms of ten basic roles and six sets of working characteristics.

2. The differences that do exist in managers' work can be described largely in terms of the common roles and characteristics - such as muted or highlighted characteristics and special attention to certain roles.

3. As commonly thought, much of the managers' work is challenging and nonprogrammed. But every manager has his share of regular, ordinary duties to perform, particularly in moving information and maintaining a status system. Furthermore, the common practice of categorizing as nonmanagerial some of the specific tasks many managers perform (like dealing with customers, negotiating contracts) appears to be arbitrary. Almost all of the activities managers engage in - even when ostensibly part of the regular operations of their organizations -ultimately relate back to their roles as manager.

4. The manager is both a generalist and a specialist. In his own organization he is a generalist - the focal point in the general flow of information and in the handling of general disturbances. But as a manager, he is a specialist. The job of managing involves specific roles and skills.

Unfortunately, we know little about these skills and, as a result, our management schools have so far done little to teach them systematically.

5. Much of the manager's power derives from his information. Wit access to many sources of information, some of them open to no one else in his organizational unit, the manager develops a data base that enables him to make more effective decisions than his employees. Unfortunately, the manager receives much information verbally, and lacking effective means to disseminate it to others, he has difficulty delegating responsibility for decision making. Hence, he must take full charge of his organization's strategy-making system.

6. The prime occupational hazard of the manager is superficiality. Because of the open-ended nature of his job and because of his responsibility for information processing and strategy-making, the manager is induced to take on a heavy load of work, and to do much of it superficially. Hence, his work pace is unrelenting and his work activities are characterized by brevity, variety, and fragmentation.The job of managing does not develop reflective planners; rather, it breeds adaptive information manipulators who prefer a stimulus-response milieu.

7. There is no science in managerial work. Managers work essentially as they always have - with verbal information and intuitive (nonexplicit) processes. The management scientist has had almost no influence on how the manager works.

8. The manager is in a kind of loop. The pressures of his job force him to adopt work characteristics (fragmentation of activity, emphasis on verbal communication, among others) that make it difficult for him to receive help from the management scientist and that lead to superficiality in his work. This in effect leads to more-pronounced work characteristics and increased work pressures. As the problems facing large organizations become more complex, senior managers will face even greater work pressures.

9. The management scientist can help break this loop. He can provide significant help for the manager in information processing and strategy making, provided he can better understand the manager's work and can gain access to the manager's verbal data base.

10. Managerial work is enormously complex, far more so than a reading of the traditional literature would suggest. There is a need to study it systematically and to avoid the temptation to seek simple prescriptions for its difficulties. We shall improve it significantly only when we understand it precisely.

APPENDIX C-3

PROPOSITIONS ABOUT MANAGERIAL WORK CHARACTERISTICS

1.   Because of the open-ended nature of his job, the manager feels compelled to perform a great quantity of work at an unrelenting pace. Little free time is available and breaks are rare. Senior managers, in particular, cannot escape from their jobs after hours, because of the work they take home and because their minds tend to be on their jobs during much of their "free" time.

2. In contrast to activities performed by most nonmanagers, those of the manager are characterized by brevity, variety, and fragmentation. The vast majority are of brief duration, on the order of seconds for foremen and minutes for chief executives. The variety of activities performed is great, and the lack of pattern among subsequent activities, with the trivial interspersed with the consequential, requires that the manager shift moods quickly and frequently. In general, managerial work is fragmented and interruptions are commonplace.

3. The manager actually appears to prefer brevity and interruptions in his work. He becomes conditioned by his workload; he develops an appreciation for the opportunity cost of his own time; and he lives continuously with an awareness of what else might or must be done at any time. Superficiality is an occupational hazard of the manager's job.

4. The manager gravitates to the more active elements of his work - the current, the specific, the well-defined, the non-routine activities. Mail processing is viewed as a burden, with the little "action" mail receiving the most attention. Very current information (gossip, hearsay, speculation) is favored; routine reports are not. Time scheduling reflects a concern with the definite and concrete, and activities tend to focus on specific rather than general issues. The pressure of the job does not encourage the development of a planner, but of an adaptive information manipulator who works in a stimulus-response environment and who favors live action.

5. Verbal and written contacts are the manager's work and his prime tools are five media - mail (documented), telephone (purely verbal), unscheduled meetings (informal face-to-face), scheduled meetings (formal face-to-face), and tour (observational). The manager clearly favors the three verbal media, spending most of his time in verbal contact.

6. Mail receives cursory treatment, although it must be processed regularly. The mail tends to contain little "live action" material; processing is time-consuming; and it moves slowly and involves long feedback delays. The mail contains much general data and lengthy documents (reports, periodicals, and so on) and numbers of formal communications and inconsequential requests that must, nevertheless, be answered. The manager generates much less mail than he receives, most of it necessary responses to input mail. The manager's treatment of mail suggests that subordinates beyond his routine verbal reach

tend to be at an information disadvantage compared with those who work in closer proximity.

7. The informal media (telephone and unscheduled meetings) are generally used by the manager for brief contacts when the parties are well known to each other, and when information or requests must be transmitted quickly.

8. The scheduled meeting consumes more of the manager's time than any other medium. It allows for contacts of long duration of a formal nature, with large groups of people, and away from the organization. Activities for the purposes of ceremony, strategy-making, and negotiation generally take place at scheduled meetings. Of special interest in scheduled meetings is the general discussion at the beginning and end of each, which frequently involves the flow of important information.

9. Tours provide the manager with the opportunity to observe activity informally and without prearrangement. But the manager spends little of his time in open-ended touring.

10. The manager may be likened to the neck of an hourglass, standing between his own organization and a network of outside contacts, linking them in a variety of ways. External contacts generally consume one-third to one-half of the manager's contact time. These are of great variety and include clients, suppliers, associates, peers and others. These people serve, in effect, as a network of informers. Nonline relationships are a significant and complex component of the manager's job.

11. Subordinates generally consume one-third to one-half of the manager's contact time, most often for purposes of making requests, of sending or receiving information, and of making strategy. The manager interacts freely with a wide variety of subordinates, bypassing formal channels of communication to do so.

12. The manager spends relatively little of his time with his superior (or directors in the case of the chief executive) - generally on the order of ten percent.

13. The manager's job reflects a blend of duties and rights. Although superficial study of managers' activities suggests that they often control little of what they do, closer analysis suggests that the manager can exert self control in two important ways. The manager is responsible for many initial commitments, which then lock him into a set of ongoing activities; and the manager can take advantage of his obligations by extracting information, by exercisirg his leadership, and in many other ways.

APPENDIX C-4

PROPOSITIONS ABOUT MANAGERIAL ROLES

1. Managerial activities and managerial roles may be grouped in three categories – those concerned primarily with interpersonal relationships, those that deal primarily with information processing, and those that involve the making of significant decisions.

2. The work of managers of all types may be described in terms of ten observable roles: figurehead, liaison, and leader (interpersonal roles), monitor, disseminator, and spokesman (information roles), and entrepreneur, disturbance handler, resource allocator, and negotiator (decisional roles).

3. These ten roles form a gestalt – an integrated whole. The three interpersonal roles derive from the manager's formal authority and status; these give rise to the three informational roles; and these in turn enable the manager to perform the four decisional roles.

4. The simplest of managerial roles, that of figurehead, identifies the manager as a symbol, obliged to carry out a number of social, inspirational, legal, and ceremonial duties. In addition, the manager must be available to certain parties that demand to deal with him because of his status or authority.

5. The _leader_ role identifies the manager's relationship with his subordinates. He defines the milieu in which they work, motivates them, probes into their activities to keep them alert, and takes responsibility for hiring, training, and promoting them. The manager attempts to bring subordinate and organizational needs into a common accord to promote efficient operations. The leader role pervades virtually all the manager's activities in which subordinates are involved, even those whose main purpose is not interpersonal. The power of the manager is most clearly manifested in the leader role.

6. In the _liaison_ role the manager develops a network of contacts outside of his organization, in which information and favors are traded for mutual benefit. Managers spend considerable amounts of time performing this role, first by making a series of commitments to establish these contacts, and then by carrying out various activities to maintain them.

7. Evidence suggests that the manager serves as "nerve center" of his organization's information. His unique access to all subordinates and to special outside contacts (many of them nerve centers of their own organizations) enables the manager to develop a powerful data base of external and internal information. In effect, the manager is his organization's generalist with the best store of nonroutine information.

8. As _monitor_ the manager continually seeks and receives information from a variety of sources in order to develop a thorough understanding of the organization and its environment. Information arrives on internal

358

operations, external events, ideas, and trends, and in the form of analyses and pressures.

9. A good part of the manager's information is current, tangible, and nondocumented. Hence the manager must take responsibility for the design of his own information system, which he does by building liaison contacts and by training subordinates to bypass their superiors in delivering information to him.

10. The manager uses his information to c .ect changes, to identify problems and opportunities, to build up a general understanding of his milieu for decision making, to determine organizational values, and to inform outsiders and subordinates.

11. As _disseminator_ the manager sends external information into his organization and internal information from one subordinate to another. This information may be of a factual or a value nature.

12. The manager serves as the focal point for his organization's value system. Influencers direct their statements of preference to him; he, in turn, assimilates and combines these according to the power of the source, and disseminates information on overall organizational values to subordinates who use it as a guide in decision making. The dissemination of values occurs in terms of specific statements on specific issues, not in terms of global preferences.

13. The manager faces a "dilemma of delegation." Only he has the information necessary to make a great many important decisions. But the information is in the wrong form - verbal and in memory rather than documented. Hence, dissemination of it is time consuming and difficult. The manager must overload himself with tasks or spend a great amount of time disseminating information, or delegate with the understanding that the job will be done with the use of less information than he has.

14. As spokesman the manager must transmit information to various external groups. He must act in a public relations capacity; lobby for his organization; keep key influencers (board of directors or boss) informed; inform the public about his organization's performance, plans and policies; and send useful information to his liaison contacts.

15. As spokesman, furthermore, the manager must serve outsiders as an expert in the field in which his organization operates.

16. The manager must take full responsibility for his organization's strategy-making system, the system by which important decisions are made and interrelated. He has the necessary authority and information, and by having control over all important decisions, he can integrate them.

17. As entrepreneur, the manager initiates and designs much of the controlled change in his organization. He continually searches for problems and opportunities. When a situation requiring improvement is found, the manager initiates an "improvement project" - a series of related decisions

and other activities, sequenced over a period of time, that leads to the actual improvement.

18. The manager may involve himself in an improvement project on one of three levels. He may delegate all responsibility to a subordinate, implicitly retaining the right to replace him; he may delegate responsibility for desig` but retain responsibility for choice via authorization; or he may supervise the design phase himself.

19. At any one time senior managers appear to maintain supervision over a large inventory of improvement projects. These vary widely in stage of development, with some under active development, some in limbo, and some nearing completion. Each is worked on periodically, with each step followed by a period of delay during which the manager waits for the feedback of information or the occurrence of an event. Occasionally, a project is completed or a new one added to inventory.

20. As his organization's generalist, the manager must take charge when his organization meets with an unexpected stimulus for which there is no clear programmed response. In effect, he assumes the role of disturbance handler. Disturbances may arise from conflicts between subordinates, conflicts between the manager's organization and another, and losses of resources or threats thereof. Disturbance arise both because "poor" managers are insensitive and because innovation by "good" managers inevitably leads to unanticipated consequences. Faced with a disturbance, the manager gives it priority and

devotes his efforts to removing the stimulus - to buying time so that it can be dealt with leisurely by an improvement project.

21. In his _resource allocator_ role the manager oversees the allocation of all forms of organizational resources (such as money, manpower, reputation). This involves three essentials - scheduling his own time, programming the work of the organization, and authorizing actions.

22. In scheduling his own time the manager implicitly sets organizational priorities. What fails to reach him fails to get support. Thus, his time assumes a significant opportunity cost.

23. The manager takes responsibility for establishing the basic work system of his organization and programming the work of subordinates - deciding what will be done, who will do it, what structure will be used.

24. Basic continuing control over resource allocation is maintained by the manager by authorizing all significant decisions before implementation. This enables him to interrelate decisions. Some decisions are authorized within a regular budgeting process; most are authorized on an ad hoc basis. These are difficult choices - time is limited, yet the issues are complex and subordinates' proposals cannot be dismissed lightly. In some cases, the manager decides on the proposer rather than the proposal.

25. To help in evaluating proposals, managers develop loose models and plans in their heads. The models describe a great variety of internal and external

situations. The plans - in the form of improvement projects to be initiated -serve to provide a common basis against which to evaluate proposals. The plans are loose, flexible, and implicit, so that they can be updated with the arrival of new information.

26. As negotiator the manager takes charge when his organization must engage in important negotiation activity with other organizations. He participates as figurehead, as spokesman, and as resource allocator.

27. The ten roles suggest that managers, while generalists when viewed within their organizations, are in fact specialists required to perform a particular set of specialized roles.

28. Organizations require managers not only because of imperfections in the system and unexpected changes in the environment, but because a formal authority is required to carry out certain basic, regular duties. The ten roles suggest six basic purposes of the manager - to ensure the efficient production of the organization's goods and services, to design and maintain the stability of organizational operations, to adapt the organization in a controlled way to its changing environment, to ensure that the organization serves the ends of those persons who control it, to serve as the key information link between the organization and its environment, and to operate the organization's status system.

APPENDIX C-5

PROPOSITIONS ABOUT VARIATIONS IN MANAGERS' WORK

1. Variations in the content and characteristics of managers' work can be explained by a contingency theory comprising four sets of variables - environmental variables, including characteristics of the milieu, the industry, and the organization; job variables, including the level in the organization and the function supervised; person variables, including personality and style of the incumbent; and situational variables, including a host of time-related factors.

2. The level of the job and the function supervised appear to account for more of the variation in managers' work than any other variables.

3. The more dynamic his organization's environment (competition, rate of change, growth, pressure to produce), the more time the manager spends in informal communication, the more varied and fragmented his work, and the greater his orientation to live action and to verbal media.

4. Top managers of public organizations and institutions spend more time in formal activity (such as scheduled, clocked meetings) and more time meeting directors and outside groups than do managers of private organizations. Top managers of service organizations spend more time in the liaison role than do those of product organizations.

5. The larger the overall organization, the more time the top manager spends in formal communication (memos, scheduled meetings), the less brief and fragmented his activities, the greater is range of external contacts, the more developed his formal communications network (especially mail), the greater his involvement with external work (ceremony, external board work), the less his involvement with internal operations, and the less time he spends substituting for subordinates. Managers of small firms spend more time on the roles of specialist and substitute operator.

6. The higher the level of the manager in the hierarchy, the more unstructured, unspecialized, and long-range the job, the more complex, intertwined, and extended in time the issues handled, the less focused the work.

7. The lower the level, the more informal the job and the less time spent in the figurehead role.

8. Managers at lower levels are oriented more directly toward maintaining a steady workflow than those at higher levels; hence, the former spend more time in the real-time roles - disturbance handler and negotiator.

9. The lower the level,, the more pronounced the characteristics of brevity and fragmentation and the greater the focus on the current and specific issues.

10. Senior managers work longer hours than others, both on the job and in their off-hours.

11. Managers at given levels specialize in the information they process and spend much of their contact time with a related "clique" of people.

12. Line production managers are more oriented toward operating problems, and experience greater fragmentation in their work; they spend more time in the decisional roles, especially disturbance handler and negotiator.

13. Line sales managers focus on external relationships and the development of subordinates; they spend more time in the interpersonal roles - figurehead, leader and liaison.

14. Managers of staff specialists spend more time alone, are more involved with paperwork, demonstrate the least amount of fragmentation and variety in their work, spend more time in advising outsiders in peer and lateral relationships, and spend considerable time in their specialty functions; they serve as experts as well as managers; and they spend more time in the informational roles: monitor, spokesman and disseminator.

15. In some organizations, top managers informally create executive teams of two (diads) or three (triads) that share responsibility for the performance of the ten roles of a single managerial job; these team arrangements succeed to the extent that nerve-center information can be shared efficiently.

16. Most common is the diad in which the chief executive concentrates on the external roles (figurehead, liaison, spokesman, negotiator), leaving much of the responsibility for the internal roles (leader, disseminator, resource allocator, disturbance handler) to his second in command.

17. Time-related variations in managerial jobs suggest annual and perhaps monthly patterns, but few weekly or daily patterns.

18. Managerial jobs tend to reflect a change-stability cycle in which periods of concentration on change (more time in entrepreneur and negotiator roles in particular) are followed by periods in which the changes are considered (more time in leader and disturbance handler roles).

19. Periods of intensive threat require the manager to spend a great portion of his time in the disturbance handler role; these are followed by periods of replenishment of contacts and of resources - liaison, spokesman, and resource allocator roles.

20. Managers in new jobs tend to spend a greater proportion of time than others developing contacts and collecting information (liaison and monitor roles); later they go through a period of innovation (entrepreneur role); finally, they settle into the regular working patterns.

21. Societal shifts toward greater organizational democracy and extension of the organization's coalition will require that managers of the future

spend more time in the leader role and the external roles, figurehead, liaison, spokesman, and negotiator.

22. Managerial jobs may be grouped into eight basic job types: contact man (for whom the liaison and figurehead roles are most important); political manager (stressing the spokesman and negotiator roles); entrepreneur (entrepreneur and negotiator roles); insider (resource allocator role); real-time manager (disturbance handler role); team manager (leader role); expert manager (monitor, spokesman roles); and new manager (liaison, monitor roles).

APPENDIX   D

AIR WAR COLLEGE
EXECUTIVE ASSESSMENT
AND
DEVELOPMENT COURSE:
PERIOD DESCRIPTIONS

TITLE: EXECUTIVE ASSESSMENT AND DEVELOPMENT OVERVIEW

INTRODUCTION: Your performance in any life situation or life role begins with your effectiveness as a person. Thus, the Executive Assessment and Development Course provides a framework for thinking about personal effectiveness and for developing the specific skills that comprise it. This course serves as a review process to assist you in gaining a clearer understanding of yourself as a person--your achievements, your expectations, your basic values, your health, your major desires, and your needs for executive self-development.

OBJECTIVE: Comprehend specific behavioral and physiological factors related to personal effectiveness.

DESIRED LEARNING OBJECTIVES:

1. Explain the Air War College concept of "personal effectiveness."

2. Determine focal points of strength from key behavioral and physiological factors and identify specific areas in need of develooment.

3. Interpret data collected from combined self-assessment and health assessment activities.

4. Identify alternative means and resources for putting together an executive development action plan.

ASSIGNED READINGS: None

TITLE: EXECUTIVE DEVELOPMENT CHALLENGE

INTRODUCTION: The Air War College Executive Development Program challenges you to enhance your career and chances for future success by providing the opportunity for you to begin your own executive development program. It begins by helping you understand what executive development is, continues by explaining the opportunities available, and concludes with how to formulate your own effort.

OBJECTIVE: Comprehend and respond to the benefits of executive deve'-pment and the importance of devising a personalized program.

DESIRED LEARNING OBJECTIVES:

1. Explain what executive development planning is.

2. Contrast strengths and weaknesses of executive development planning.

3. Decide on the appropriate level of participation based on professional and personal areas where executive development planning is needed.

4. Interpret data from combined assessment and health assessment activities.

5. Design a personal development planning philosophy with professional and personal goals.

ASSIGNED READINGS:

1. Drath, Wilfred H., Kaplan, Robert E., and Kofodimos, Joan R. <u>High Hurdles: The Challenges of Executive Self Development.</u> (Technical Report No. 25). Greensboro, NC: Center for Creative Leadership, 1985.

2. Michelson, Barton J., and Ward, F. Edward, Jr. <u>Executive Development Challenge.</u> Maxwell AFB, AL: Air University, 1988.

INSTRUCTION PERIOD NO. 3002 (1L)

TITLE: EXECUTIVE WRITING AND EDITING

INTRODUCTION: Some of the writing we encounter in the Air Force is full of jargon, meaningless filler, and complex ways of saying simple things. Avoid that style. Insist on clear, direct writing from your subordinates, and recognize the common blunders you may see in drafts. Demand good writing from yourself and those who work for you!

OBJECTIVES: Analyze typical Air Force writing and common barriers to clear communication; value compact, straightforward language and effective organization.

DESIRED LEARNING OBJECTIVES:

1. Break down traditional bureaucratic writing and identify the garbage in it.

2. Organize your writing by giving the bottom line first, i.e., the main point. Follow that with whatever background or explanation you need.

3. Select good writing habits for special Air Force writing, like effectiveness reports and thank you letters.

ASSIGNED READINGS: None

TITLE: MYERS-BRIGGS TYPE INDICATOR (MBTI)

INTRODUCTION: People are different in fundamental ways. They want different things; they have different motives, purposes, aims, values, needs, drives, impulses, urges. Nothing is more fundamental than that. The MBTI is an extremely useful and practical tool for understanding the basic differences between people. The Indicator identifies different styles of perception, judgment, energy direction, and lifestyle. In this period, we examine how we gather information, how we make decisions, how we derive and direct our energy, and how we deal with our environment.

OBJECTIVES: Value the importance of psychological types and how different types with their different preferences relate to one another; comprehend the impacts they have in the work setting, the home, or in learning situations.

DESIRED LEARNING OBJECTIVES:

1. Identify the basic type preferences and attitudes and how they differ in their reactions, values, motivations, skills and interests.

2. Describe the dynamic interplay between various type preferences, attitudes and behaviors.

3. Infer how personality type can be used as an effective tool in improving interpersonal communications, in situations requiring cooperation and teamwork, in parenting, and in education.

ASSIGNED READINGS:

1. Kroeger, Otto and Thuesen, Janet M. "The Sixteen Profiles," excerpts from _Typetalk_. 1988, pp. 52-58, 216-282.

2. Moore, Thomas. "Personality Tests are Back," _Fortune_. March 30, 1987, pp. 74-87.

3. Selected handouts:

    "Understanding the Type Table"

    "Ten Practical Ways to Apply the MBTI"

    "Pathways and Pitfalls"

    "Leading in Style"

4. Myers, Isabel Briggs. _Introduction to Type._ Revised edition, 1987.

<u>INSTRUCTION PERIOD NO. 3004 (2S)</u>

<u>TITLE:</u>   APPLICATION SEMINAR

<u>INTRODUCTION:</u>   This instructional period is an application seminar that incorporates results from the MBTI assessment. The seminar builds on the premise that reorganization of one's type preferences can be used as a guide for assessing personal strengths and weaknesses related to executive leadership. Your type preferences as they relate to potential effectiveness in the work environment will be the focus of this seminar. Suggestions for strengthening executive leadership skills will be addressed.

<u>OBJECTIVE:</u>   To analyze MBTI results focusing on personal strengths and weaknesses related to executive leadership effectiveness.

<u>DESIRED LEARNING OBJECTIVES:</u>

1. Identify your type preferences. How are they similar and different from others in previous and future work situations?

2. Infer how these personality similarities and differences facilitate and block productivity.

3. Develop and sharpen interpersonal and leadership skills that will increase your personal job effectiveness.

4. Point out the basic differences between people so that you can work with them while remaining comfortable with yourself.

ASSIGNED READINGS:

1. Bring your MBTI results to the seminar.

2. Review _Introduction to Type_ and _The Sixteen Profiles_.

3. Be prepared to discuss the implications of your type as you consider the development of a senior leadership strategy for managing complex organizations.

<u>INSTRUCTION PERIOD NO. 3005 (1L)</u>

<u>TITLE:</u>   FITNESS ASSESSMENT--AWC CLASS OF 89 PROFILE

<u>INTRODUCTION:</u>   An overview of the demographic and physiologic data of the Air War College Class of 1989 will be presented. Using information from the cholesterol screening, we will report the class' risk of developing heart disease as it pertains to age and sex. The results of the stationary bike test will be categorized and reported according to age and fitness levels. In addition, inter-class comparisons with the AWC Class of 1988 will be reported. Finally, a recommended plan of action for the academic year will be discussed, including a summarization of the options available to the AWC family.

<u>OBJECTIVE:</u>   Comprehend the health data of the Class of 1989 pertaining to fitness and the risk for developing cardiovascular disease and how these data compare to the Class of 1988.

<u>DESIRED LEARNING OUTCOMES:</u>

1.   Interpret one's personal health data compared with the "normal" acceptable ranges and the AWC Classes of 1988 and 1989.

2.   Identify the options available to each student in the Health Assessment Program throughout the academic year.

3.   Estimate a plan of action, based upon personal health data, that will have positive and long term manifestations on personal health and wellness.

<u>ASSIGNED READINGS:</u>   None

TITLE: CARDIOVASCULAR HEALTH

INTRODUCTION: Cardiovascular Disease (CVD) is the common underlying cause of heart attacks and is responsible for one half of all deaths in the United States each year. Strokes and hardening of the arteries (arteriosclerosis) in the legs and abdomen are other forms of CVD. A basic knowledge of the cardiovascular system is necessary to better understand how to decrease your risk of CVD. High blood pressure, smoking, and elevated blood cholesterol levels are associated with increasing the risk of CVD, and we can determine the impact of these factors on our health. The information provided can assist you in making positive life-style changes which will make you less vulnerable to developing CVD.

OBJECTIVE: Comprehend the components and functions of the cardiovascular system and how individual life-styles can influence the risk of cardiovascular disease.

DESIRED LEARNING OUTCOMES:

1. Translate the potential effects of risk factors on your life-span and productivity.

2. Recognize the importance of reducing or eliminating risk factors.

3. Summarize the relationship between nutrition and cardiovascular disease.

ASSIGNED READINGS:

1. Whitney, Edwin J., Major. <u>Help Your Heart</u>.

2. Cooper, Kenneth H. <u>Controlling Cholesterol</u>. Bantam Book Publisher, 1988.

3. Monmaney, Terence, et al. "The Cholesterol Connection," <u>Newsweek</u>. 8 February 1988, pp. 56-58.

OPTIONAL READING:

1. Kowalski, Robert E. <u>The 8-Week Cholesterol Cure</u>. 1987. Two copies available in Air University Library. Call number 616.1230654. K88e. Excellent source for "How To" recipes with oat bran.

TITLE: PHYSICAL FITNESS

INTRODUCTION: Physical inactivity is a leading risk factor in cardiovascular disease and contributes to many other disease entities. Specifically, a sedentary lifestyle contributes to obesity, high blood pressure, elevated cholesterol, high stress levels, and poor mental health. Synonymous with physical fitness is the term aerobic capacity.   Aerobic capacity refers to the body's ability to utilize oxygen volume (max VO2). The more physically fit a person is, the greater is ability to utilize oxygen; therefore, the greater his max VO2.   Max VO2 can be increased with endurance type activities.   The magnitude of the increase in VO2 max varies considerably and is dependent upon a number of factors such as hereditary, age, and type, duration and intensity of exercise.   A simpler and more convenient method of measuring oxygen consumption is to monitor the heart rate.   The heart rate reflects the amount of effort expended during exercise. When compared to an unfit person, a highly fit person will have a higher max VO2 and can perform considerably more exercise with a lower heart rate.

OBJECTIVE: Analyze the important role of exercise in maintaining readiness and minimizing the risk factors contributing to cardiovascular disease.

DESIRED LEARNING OUTCOMES:
1.   Compare and contrast current thinking on the effects of exercise as it pertains to combat readiness and personal health.

2. Assess and modify one's personal exercise program relevant to intensity, frequency, and duration in order to maximize the benefits of our personal exercise sessions.

ASSIGNED READINGS:

1. Cooper, Kenneth H. _The Aerobics Program for Total Well-Being_. 1983.

2. American College of Sports Medicine Position Statement: _Recommended Quantity and Quality of Exercise for Developing and Maintaining Fitness in Healthy Adults_.

3. Levine, Art, et al. "New Rules of Exercise," _U.S. News and World Report_. August 11, 1986, pp. 52-56.

<u>INSTRUCTION PERIOD NO. 3008 (2L/1D)</u>

<u>TITLE:</u>   STRESS MANAGEMENT

<u>INTRODUCTION:</u>   An estimated 80 percent of all modern disease has its origins in what has come to be called "stress." This fact should be of immediate concern to the military executive whose life style increasingly gives rise to those pressures and changes associated with the phenomenon. Stress is likely the single most common cardiovascular disease risk factor among senior service school students. What is stress? To paraphrase one researcher, it is a state, caused by a variety of agents, resulting in changes to the biological system. In more colloquial terms, stress can be defined as wear and tear on the body caused by life. Since it is the response to stress that determines the extent of damage to our bodies, becoming aware of one's reaction to stress is important in reducing the negative effects.

<u>OBJECTIVES:</u>   Comprehend the "environment" within which the executive functions, and analyze, through individual health data, the factors that impact favorably/unfavorably on personal health; apply measures to survive the effects of these pressures and still attain one's goals.

<u>DESIRED LEARNING OUTCOMES:</u>

1. Identify signs of stress in self and others and assess one's reactions to stress.

2. Distinguish between the various signs of stress.

3. Summarize the reasons why stress is a cardiovascular disease risk factor.

4.   Utilize the <u>STRESS MANAGEMENT INVENTORY</u> to plan and develop healthy coping mechanisms.

<u>ASSIGNED READINGS:</u>

1. Eliot, Robert S. and Breo, Dennis L. <u>Is It Worth Dying For?</u> Bantam Book Publisher, 1984.

2. Troxler, Richard G. and Wetzler, Harry P., Col. "Executive Stress: the Symptoms, the Cause and the Cure," <u>Air University Review</u>. March-April 1981, pp. 43-52.

3. Handout: "Attack Stress," provided by Major Dave Hindelang, NDU.

4. Warrick, D.D. and Gardner, D.G. <u>STRESS MANAGEMENT INVENTORY</u> self-scoring instrument. (Issued separately. <u>Bring with you to Jones Auditorium on 19 August 1988)</u>

TITLE: WIN WITH WELLNESS

INTRODUCTION: Health promotion and disease prevention is everyone's business and hopefully, a personal concern of all. We know there is much we can do to improve our health, and the, to stay healthy. We all have risk factors and we need to make the necessary changes to reduce those factors we can influence. It is no longer acceptable to depend on society, legislators, or the military health care system to be responsible for our health. Attaining and sustaining optimal health is a personal responsibility and one we must accept.

OBJECTIVE: Value a personal wellness plan based upon current information "to tune-in and tune-up" the body, mind, and spirit through personal commitment to total well-being.

DESIRED LEARNING OUTCOMES:

1. Identify your uniqueness, the strengths you offer, and the ways you nurture your positive qualities.

2. Create realistic goals in planning an approach to changes in lifestyle.

ASSIGNED READINGS:

1. Goldberg, Phillip. Executive Health. 1978 (Issued Separately)

2. Optional Handouts: "Dietary Guidelines for Americans," Home and Garden Bulletin, Number 232-1 through 232-7.

APPENDIX   E

AN
ILLUSTRATIVE SAMPLE
OF
ASSESSMENT   INSTRUMENT
ABSTRACTS

BENCHMARKS (111)

Author: Michael M. Lombardo, Esther T. Lindsey and T. Daniel Pryor

Source: Center for Creative Leadership
5000 Laurinda Drive
Greensboro, NC 27402

Cost: Variable rate schedule

Date: 1987

Stated Purpose: BENCHMARKS provides the manager with feedback on performance along four dimensions: management skills, derailment factors, how managers handle certain critical jobs and problem-solving approach and operating style. The results can be used by the managers to focus their own development and better plan their careers.

Respondents: Manager, at least one superior, three peers and three subordinates.

Number of Items: 174

Time To Complete: Not specified.

Scales:

- Skills and Perspectives:
  - Resourcefulness
  - Doing whatever it takes
  - Quick study
  - Building and mending relationships
  - Leading subordinates
  - Compassion and sensitivity
  - Integrity
  - Setting a developmental climate
  - Confronting problem subordinates
  - Team orientation
  - Balance between personal life and work
  - Decisiveness
  - Self-awareness
  - Hiring talented staff
  - Putting people at ease
  - Acting with flexibility

- Derailment Factors:
  - Problems with interpersonal relationships
  - Difficulty in molding a staff
  - Difficulty in making strategic transitions
  - Lack of follow through
  - Overdependence
  - Strategic differences with higher management

- Challenging Job Assignments:
    - Starting-from-scratch jobs
    - Fix-it jobs
    - Project/task forces
    - Scope jobs
    - Line-to-staff switch
    - Demotions/missed promotions/unchallenging jobs

Scoring: Scoring is done by the Center for Creative Leadership (as part of the cost of the survey)

Feedback: The Center provides a 40-page report summarizing the results. The results, used with the accompanying development guide, can be used by managers to focus their development and better plan their careers.

COACHING PRACTICES SURVEY (139:40-46)

Author: Walter R. Mahler

Source: Mahler Associates, Inc.
          10-B Midland Park Center
          Midland Park, NJ 07432

Cost: Available only as part of a larger training program.

Date: Approximately 1963

Stated Purpose: The CPS was developed " ... to help a manager be
experimental about his/her relationship with subordinates."

Respondents: Immediate subordinates of a manager

Number of Items: 62

Time to Complete: 20-30 minutes

Scales:

- Responsibilities and goals
- Delegation
- Knowledge of performance
- Assistance as needed
- Motivation
- Working relationships
- Benefiting from experience
- Group activities
- Future responsibilities

Scoring: Scoring must be completed by Mahler Associates

Feedback: For each item in the instrument:

- Response distribution
- Number wanting increased activity
- Number wanting decreased activity
- Standard set by the manager
- Number of ratings below standard

A "Profile Report" graph is also enclosed which plots the "percent favorable
response" for each of the nine factor scores plus "Coaching Results." The
individual manager's own average, his/her subordinate's average, and the
national average are compared for each factor.

DESIRABLE MOTIVATIONAL CHARACTERISTICS - VERSION II (139:48-54)

Author: Lennart Lennerlof

Source: Lennerlof, L. Supervision: Situation, Individual, Behavior, Effect (Report No. 57). Stockholm, Sweeden: Swedish Council of Personnel Administration, 1968.

Cost: Information not available

Date: Version II, 1968

Stated Purpose: "Its chief purpose was to obtain from the superiors and subordinates their conception of the role they expected the supervisors to fill, but also the supervisors themselves were asked to fill in the questionnaire." The questionnaire was developed for research purposes, measuring the role expectations subordinates have for their managers. It has also been used to study supervisors' attitudes towards different goals.

Respondents: Superiors and subordinates complete a questionnaire on managers; the manager also fills out the instrument.

Number of Items: 48

Time to Complete: 10-15 minutes

Scales:

- Personal Achievement as Supervisor (6 items)
- Affiliative Relationships (6 items)
- Departmental Achievement (6 items)
- Striving for Loyalty to Own Work Group (4 items)
- Authoritarian Relationships (3 items)
- Independence (3 items)

Scoring: Items were assigned a score between 1 ("has negative consequences") to 6 ("absolutely essential"). Scale scores are formed by adding the unweighted item scores.

Feedback: None is provided. The questionnaire was used only for research purposes.

JOB SATISFACTION QUESTIONNAIRE FOR WORKERS - VERSION V (139: 55-61)

Author: Lennert Lennerlof

Source: Lennerlof, L. Supervision: Situation, Individual, Behavior, Effect (Report No. 57). Stockholm, Sweeden: Swedish Council of Personnel Administration, 1968.

Cost: Information is not available.

Date: Version V, 1968

Stated Purpose: The questionnaire was designed to measure job satisfaction of non-supervisory personnel with the job itself, with their immediate manager, and with corporate policies in general.

Respondents: Non-supervisory personnel describe first-line managers.

Number of Items: 142

Time to Complete: About 30 minutes

Scales:

- Work and working conditions (3 scales)
- Work mates and immediate supervisors (5 scales)
- Larger organizational climate (e.g., Higher Superiors and Personnel policy)(9 scales)

Scoring: A score of 5 is attached to a "yes, to a great extent," on down to a 1 for a "no, definitely not" response. Item numerical scores are added in an unweighted form to create scale scores.

Feedback: None is provided.

LEADER BEHAVIOR DESCRIPTION QUESTIONNAIRE - FORM XII (139:62-68)

Author: Bureau of Business Research
The Ohio State University

Source: Bureau of Business Research
College of Commerce and Administration
The Ohio State University
Columbus, OH 43210

Cost: $4.00 per 25 tests

Date: 1962

Stated Purpose: The LBDQ-XII was developed "... to describe the behavior of the leader, or leaders, in any type of group or organization, provided the followers have had an opportunity to observe the leader in action as a leader of their group. The LBDQ-XII is not recommended for selection, assignment or assessment purposes.

Respondents: Followers describe the behavior of their supervisor or leader. The LBDQ-XII can be used by peers or superiors and, with changes, can be used by the leader as a self-description measure. Between 4 and 10 respondents per leader are recommended.

Number of Items: 100

Time to Complete: 20-30 minutes

Scales:

- Representation
- Demand reconciliation
- Tolerance of uncertainty
- Persuasiveness
- Initiation of structure
- Tolerance of freedom
- Role assumption
- Consideration
- Production emphasis
- Predictive accuracy
- Integration
- Superior orientation

Scoring: Each response is assigned a score from 1 to 5. For most items "Always" scores 5 and "Never" scores 1. Scores of relevant items are summed for subscale scores. Subscale scores for each manager are then averaged across respondents.

Feedback: None is specified.

LEADER EFFECTIVENESS ADAPTABILITY DESCRIPTION (139:71-77)

Author: Paul Hersey and Kenneth H. Blanchard

Source: California American University
Center for Leadership Studies
17253 Caminito Canasto
Rancho Bernardo
San Diego, CA 92127

Cost: $1.00 per copy

Date: 1973

Stated Purpose: "LASD instrumentation is intended as a means of gathering data on how a leader's behavior is perceived by subordinates, associates, superiors and self." The instrument is designed to measure:
   (1)   Style, i.e., consistent patterns of behavior of the leader
   (2)   Style range, and
   (3)   Style adaptability

Respondents: The manager and the manager's superiors, associates or subordinates.

Number of Items: 20

Time to Complete: 15-20 minutes

Scales:

- Leadership style
- Style range
- Style adaptability

Scoring: A pamphlet for self-scoring and analysis is available to managers using the LEAD. However the authors strongly encourage clients to send the data to a third party for scoring and collating.

Feedback: The specific form of display is not available. Only group-level data are presented to preserve anonymity of respondents.

LEADERSHIP OPINION QUESTIONNAIRE (139:78-86)

Author: Edwin A. Fleishman

Source: Science Research Associates, Inc.
259 East Erie Street
Chicago, IL 60611

Cost: $12.00 per 25 questionnaires

Date: 1960

Stated Purpose: The LOQ was designed to measure leadership attitudes regarding two dimensions of supervisory behavior, consideration and initiating structure. It can be used for selection, appraisal, counseling, evaluation of organizational climate, training, evaluation of training effects, and designing training curricula.

Respondents: The LOQ is a self-report measure.

Number of Items: 40

Time to Complete: Approximately 15 minutes

Scales:

- Structure
- Consideration

Scoring: The LOQ is self-scoring. The scoring booklet converts answers to numerical values through carbon and a scoring sheet. Each response is given a value from 0 to 4; these values are summed for a score on each dimension. Structure and Consideration scores are based on 20 items each. The more often the respondent engages in the behavior, the higher the scale score.

Feedback: The front page of the booklet contains a blank grid to display the respondent's Structure and Consideration scores, as well as scores from an appropriate norm group. Norms are provided in the manual or could be generated by the user organization.

MANAGER FEEDBACK PROGRAM (139:89-97)

Author: John R. Hinrichs

Source: John R. Hinrichs, President
          Management Decision Systems, Inc.
          PO Box 35
          Darien, Connecticut 06820

Cost: Information is not available.

Date: 1969

Stated Purpose: The purpose of the MFP is to provide systematic feedback to managers about significant aspects of their jobs, by:
   (1)   Giving managers an individualized, confidential report describing their subordinates' evaluations of their day-to-day performance and the overall group climate;
   (2)   Relating these subordinate evaluations to assessments by higher-level management and various performance measures;
   (3)   Identifying development needs of the individual manager and creating a greater understanding of the requirements of the management process within the organizational context; and
   (4)   Making current leadership theories relevant by relating them to the manager's current situation.

Respondents: The manager's immediate supervisor and at least four subordinates.

Number of Items: 40 items allocated to 10 scales, plus additional descriptive items, general satisfaction items, and open-ended questions.

Time to Complete:
- Job Methods Checklist: 10-20 minutes
- Work Group Description: 5-15 minutes

Scales:

- Job Methods Checklist:
     -      Concern for employee advancement and development
     -      Maintaining communications
     -      Closeness of supervision
     -      Performance expectations
     -      Human relations

- Work Group Description:
     -      Overall group atmosphere
     -      General relations with manager
     -      Clarity of job requirements
     -      Manager position power
     -      Overall management effectiveness

Scoring: For both instruments, the following scores are calculated:
      (1) Bar chart showing percentage of subordinates rated "high" on each question;
      (2) Similar data for each of the 10 scales; and
      (3) Norms for each item comparing scores to other managers in the organization holding comparable jobs.

Feedback: Management Decision Systems provides computer-generated feedback reports for the individual manager showing the following data for each item:
  (1) Bar graph indicating response distribution on the "high" rated dimension;
  (2) Percentage of respondents falling in "high," "average," and "low" categories;
  (3) Mean response (raw score);
  (4) Rank;
  (5) Number of valid responses; and
  (6) Percent "high" for relevant norm group.

A "history" plot of scores may also be provided for managers who have participated in the program before.

GRID FEEDBACK FROM A SUBORDINATE TO A BOSS (139:98-105)

Author: Scientific Methods, Inc.

Source: Scientific Methods, Inc.
         Box 195
         Austin, TX 78767

Cost: $5.00 per copy (two-booklet set)

Date: 1975

Stated Purpose: "To provide the subordinate-boss pair with a systematic basis for successfully carrying out a performance review and for planning that enables the boss, as well as the subordinate, to increase his effectiveness."

Respondents: The boss and each subordinate.

Number of Items: 10

Time to Complete: About one hour to complete the instrument. Carrying out all of the steps in the feedback sequence requires about 10 hours.

Scales:

- Reaching decisions
- Planning
- Making mistakes
- Disagreements
- Work procedures
- Requesting information
- Delegation
- Job description
- Profit consciousness
- Performance review

Scoring: The instrument is self-scoring.

Feedback: Results of boss-subordinate rankings are displayed on grids in the back of the booklets. There is one grid for each item, and each response alternative represents one of the leadership styles defined by Blake and Mouton. The grids display "ideal," "actual," and difference scores.

Several pages in the booklet are provided for recording "Improving Boss's Effectiveness" plans. Three headings – Item, Causes, and Improvement Actions –are used to document boss-subordinate agreements which can be referred to in follow-up discussions.

Author: Clark L. Wilson

Source: Clark L. Wilson
Box 471
New Canaan, Connecticut 06840

Cost: $5.00 per questionnaire
$3.00 per manual
$3.00 per questionnaire for scoring and computer printout

Date: 1977

Stated Purpose: The Multi-Level Management Surveys give managers feedback on the extent to which subordinates see their actions the same way they do. By comparing the feedback to their own self-evaluations, managers can get better insight into their impact on others in the organization. They can also compare themselves to norms obtained from several hundred other managers and subordinates. This combination of feedback and comparison points up any divergencies that may e·.,s... They then enable managers to take steps to make changes if, af*er consideration, such changes are appropriate to their responsibiliti·s.

Respondents: The ma..ager. ·superior/supervisor, peers and a minimum of three subordinates, if possible.

Number of Items: 104

Time to Complete: 20-35 minutes

Scales:

- Direction of work scales:
  - Clarification of goals and objectives
  - Encouragement of upward communications and participation
  - Orderly work planning
  - Work facilitation
  - Feedback
  - Expertise

- Control scales:
  - Time emphasis
  - Control of details
  - Goal pressure
  - Permissiveness

- Interpersonal scales:
  - Fair and enlarging work allocation
  - Approachability
  - Teambuilding

-       Theory Y and job enrichment
-       Recognizing and rewarding task performance

Scoring: Each response to each item is assigned a weight from "1" to "5"; The scoring program provides three ways to render scale scores: raw scores, standard scores and percent of maximum possible. The scoring program also provides for sub-group statistics.

Feedback: Profiles are developed to show self-report and subordinates' reports on one form. Responses to the fifteen subscales are divided into a five-point scale. The program will also produce standard score scaled profiles to fit local norms.

MANAGEMENT PROFILING: AS OTHERS SEE YOU (139:121-129)

Author: Philip B. Daniels, William G. Dyer and J. Weldon Moffitt

Source: Behavioral Science Resources
P.O. Box 411
Provo, Utah 84601

Cost: $1.25 per questionnaire
$1.00 per questionnaire processed
$2.00 per book

Date: 1975

Stated Purpose: "... a method for helping an individual manager clearly see and understand the impact of his managerial and work performance on his associates." Appropriate uses of the MP include individual assessment, team-building, and development programs.

Respondents: The manager, subordinates, peers and superiors.

Number of Items: 34 structured items covering 7 management areas and nine additional open-ended questions

Time to Complete: Not determined

Scales:

- Goals
- Communication
- Decision making
- Motivation
- Influence-interaction
- Control
- Leadership

Scoring: The MP can be scored by the publisher or the user. Profile summary sheets are provided which cluster item alternatives according to which of the management systems they represent.

Feedback: Profile lines are drawn through the data points on each summary sheet, giving the manager a visual image of the "is" vs. "ought to be." The manager may copy his/her self-ratings onto the summary sheet for easy comparison with others' ratings.

MANAGEMENT PRACTICES QUESTIONNAIRE (139:130-135)

Author: Dale Miller and John Zenger

Source: Syntex Corporation
         3401 Hillview Avenue
         Palo Alto, CA 94304

Cost: $25.00 per 100 copies; no scoring service available

Date: 1976

Stated Purpose: The MPQ was developed to enable the manager to determine how his/her management practices are viewed by work team subordinates. The MPQ is used to determine what changes in the manager's practices need to be made to improve team motivation and performance. It is used primarily as a developmental and team-building tool.

Respondents: Subordinates rate their supervisor.

Number of Items: 79

Time to Complete: 20-25 minutes

Scales:

- Goal attainment
- Responsibility
- Organization and work planning
- Delegating
- Working climate
- Problem solving/decision making
- Giving support to subordinates
- Communicating
- Team building
- Staff development
- Control
- Relations with upper management
- Other areas of management skills and practices

Scoring: Group means (of subordinates) are plotted for each item and for each of the 13 scales. The mean for groups in the organization is also listed.

Feedback: Group means are depicted pictorially for discussion between the manager and a member of the training staff. The individual items and the scales and the data are then reviewed by the manager with his/her subordinates. The results may also be discussed.

MANAGEMENT A..D PERSONNEL RELATIONS SURVEYS (139:136-142)

Author: Jay Hall (MRS) and Martha S. Williams (PRS)

Source: Teleometrics International
         P.O. Drawer 1850
         Conroe, Texas 77301

Cost: $3.00 per questionnaire and interpretive handout

Date: MRS - 1970; PRS - 1967

Stated Purpose: The instruments were designed to assess the manner in which managers and subordinates handle and respond to interpersonal relationships associated with the job.

Respondents: The PRS is filled out by the manager. The MRS is filled out by subordinates on their managers (Part I) and on their own behavior (Part II).

Number of Items: PRS - 60 items
                     MRS - 40 items

Time to Complete: Not determined.

Scales: Each part of both questionnaires produces two scores, which are based on the Johari Model:
- Exposure: Open and candid expression of one's feelings, factual knowledge, guesses, and the like in a conscious attempt to share.
- Feedback: An active solicitation by the self of the information he feels others might have which he does not.

Scoring: Both instruments are self-scoring. Raw scores and percentiles (based on data from 1,000 managers) are plotted on Johari Window grids.

Feedback: Results are displayed through the comparison of raw scores with norm percentiles on a series of grids. Equivalent sections of the MRS and PRS may be compared.

MANAGEMENT STYLE DIAGNOSIS TEST (139:143-151)

Author: W.J. Reddin

Source: Organizational Tests, Ltd.
Box 324
Fredericton, New Brunswick, Canada

Cost: $30.00 per kit (10 tests, one manual and one Users' Guide)

Date: 1974

Stated Purpose: The MSDT was designed for use as a training instrument, not as an appraisal test. It is to be used primarily as a device for raising questions about managerial style. The instrument may be used for "style coaching" between manager and subordinate. The MSDT is also useful for career guidance, self-development, need analysis and identification of managerial weak spots.

Respondents: Manager and subordinates

Number of Items: 64 pairs of statements

Time to Complete: 20-25 minutes to administer
                                     20-30 minutes to score

Scales:

- Task orientation
- Relationships orientation
- Effectiveness

Scoring: The manager scores, analyzes and interprets his/her own test.

Feedback: All the charts and diagrams used in individual scoring are provided in the MSDT test booklet. Charts for displaying group scores are available from the publisher.

MANAGERIAL STYLE QUESTIONNAIRE (139:152-159)

Author: Bruce A. Kirchhoff

Source: Bruce A. Kirchhof
Department of Management and Organizational Behavior
University of Nebraska at Omaha
Box 688
Omaha. Nebraska 68101

Cost: $40.00 per 100 copies
$50.00 for a FORTRAN computer scoring program and instructions

Date: 1974

Stated Purpose: The MSQ is designed to describe the extent to which managers use objectives or goals in performing seven critical managerial functions.

Respondents: Managers complete the MSQ-M for self-evaluation data. Subordinates complete the MSQ-S to evaluate their manager's behavior.

Number of Items: 47 items

Time to Complete: 10 to 15 minutes

Scales:

- Planning
- Controlling
- Coordinating
- Motivating
- Appraisal
- Compensation
- Personnel selection
- Training and development

Scoring: Nine key items are used for analysis. Each key item raw score must be recalculated into a standardized score based on the mean and standard deviation of all items in its functional group. The mean of these standardized scores becomes the overall summary score. A FORTRAN computer program is available to accomplish these statistical computations.

Feedback: The author is currently developing a profile display form for managerial feedback.

ORGANIZATIONAL BEHAVIOR DESCRIBER SURVEY (139:160-166)

Author: Roger Harrison and Barry I. Oshry

Source: University Associates, Inc.
7596 Eads Avenue
La Jolla, California 92037

Cost: $4.50 per package of 25 instruments (includes scoring and interpretation sheets)

Date: 1976

Stated Purpose: The OBDS was developed to assess the behavior of both line and staff managers and administrators in group and interpersonal situations arising during the course of work.

Respondents: Manager, superiors, peers and subordinates.

Number of Items: 25

Time to Complete: 10-15 minutes

Scales:

- Rational-technical competence
- Verbal dominance
- Emotional expressiveness
- Consideration

Scoring: The OBDS is self-scoring. Raw and mean scores for each scale are easily calculated for comparison with norms.

Feedback: Two bar graph diagrams are provided; one is for filling in "Your Average Scores" for the four scales, and the other shows the norm group scores.

OPINION-INFORMATION SURVEY (139:167-173)

Author: W. Harvey Hegarty

Source: Hegarty,W.H. Using subordinate ratings to elicit behavioral changes in supervisors. Journal of Applied Psychology, 1974, 59, 764-766.

Cost: Free, with permission of the author

Date: 1972

Stated Purpose: The OIS was developed for use in a study to determine whether feedback of subordinates' ratings to supervisors leads to positive changes in the supervisors' behavior.

Respondents: Non-supervisory personnel (n = 852) completed the form describing their immediate manager. The manager (n = 87) was also asked to complete a parallel form in which the task was to predict how the subordinates would rate the manager.

Number of Items: 75 items, of which 15 were scored

Time to Complete: 10-20 minutes

Scales:

- Performance feedback from the manager
- Confidence in supervisor's ability
- Recognition and sanctions
- Supervisor gives clear explanations/instructions
- Feel free to discuss problems with supervisor
- Supervisor doesn't give due credit
- Clear understanding of job expectations
- Supervisor "breathes down our necks"
- Supervisor brings out the best in people
- Supervisor is not considerate of me as a person
- Supervisor handles things which he should delegate
- Supervisor explains reasons for acceptance or rejection of ideas/suggestions
- Immediate is quick to take care of complaints
- Immediate supervisor is interested in me as a person
- Supervisor consults us when making a decision that affects us

Scoring: The following three scores were calculated for each item:
- Average score of all subordinates of a manager
- Manager's rating reflecting his/her prediction of subordinate's response
- An "ideal" supervisor score determined by Hagarty

Feedback: The three scores listed are presented in written form for each of the fifteen items.

Author: Douglas R. Bunker, Eric S. Knowles and Mathew B. Miles

Source: Dr. Douglas R. Bunker
Center for Policy Studies
State University of New York at Buffalo
240 Crosby Hall
Buffalo, New York 14214

Cost: None

Date: 1965

Stated Purpose: The OPCM was designed to assess perceived changes in interpersonal and work-related behavior as these are affected by laboratory human relations training.

Respondents: Recipients of a training experience complete the measure for themselves. A parallel form is completed by five or six persons who associate with the subject in the job setting.

Number of Items: One

Time to Complete: Less than five minutes.

Scales:

- Overt Operational Changes:
  - Communication
  - Relational facility
  - Risk-taking
  - Increased interdependence
  - Functional flexibility
  - Self-control

- Inferred Changes in Insight and Attitudes
  - Awareness of human behavior
  - Sensitivity to group behavior
  - Sensitivity to others' feelings
  - Acceptance of other people
  - Tolerance of new information
  - Self-confidence
  - Comfort
  - INsight into self and role

- Global Judgments

<u>Scoring:</u> Two kinds of total scores are usually generated:
- Total change score
- Verified change score

<u>Feedback:</u>   No information is available.

THE MANAGEMENT STYLES PROFILE (139:182-192)

Author: Bernard M. Bass and Enzo R. Valenzi

Source: Bernard M. Bass
          Graduate School of Management
          University of Rochester
          Rochester, New York 14627

Cost: $30 per unit (each unit includes a manager's questionnaire, 10 subordinate questionnaires, return envelopes, computer scoring, interpretation profile for manager, summary report for all managers participating).

Date: 1975

Stated Purpose: PROFILE gives individualized feedback for participating managers about the systems of inputs, superior-subordinate relations, and outputs which they and their subordinates perceive as operating in the workgroup situation. The discrepancies and similarities in the way that managers and subordinates view the work situation and their relationship with each other provide the basis for locating areas for improvement.

Respondents: Manager and subordinates.

Number of Items: 143 items

Time to Complete: 30 minutes

Scales:

- System inputs

    - Organization
        - constraints
        - clarity
        - warmth
        - order
        - external influences

    - Work group
        - intragroup conflict
        - interdependence
        - commitment to group

    - Task
        - clear objectives
        - routine
        - discretionary opportunities
        - complexity
        - managerial activity

- Self-related attitudes
  - fair
  - assertive
  - equalitarian
  - introspective

- Within-System Relations
  - power distribution (boss)
  - power distribution (subordinate)
  - information distribution (boss)
  - information distribution (subordinate)
  - structure
  - objectives

- Managerial styles
  - directive
  - negotiative
  - consultative
  - participative
  - delegative

- System outputs
  - effectiveness
  - satisfaction with job
  - satisfaction with supervisor

Scoring: Two scores are generated for each of the 31 scales: (1) a manager's self-report and (2) the mean of subordinates' responses to all items on the scale. A range of high and low scores by subordinates is also prepared.

Feedback: A personal computer printout displays the responses of the manager to each of the 31 scales and the mean and range of scores of his/her subordinates for each factor.

RCA MISSILE SURVEY (139:193-198)

Author: Robert L. Schoonmaker

Source: RCA Missile and Surface Radar Division
Moorestown, New Jersey

Cost: $9.50 per package

Date: 1974

Stated Purpose: The survey was designed to provide managers with feedback from their subordinates on their managerial performance, and to enable managers to "strengthen their weaknesses and hasten their development.

Respondents: Supervisors are rated by their subordinates. To date, the instrument has only been used with middle-level managers.

Number of Items: 24 items

Time to Complete: 15-20 minutes

Scales:

- Technical and professional knowledge
- Organizational knowledge
- Public knowledge
- Analytical and decision-making skills
- Interpersonal skills

Scoring: The response alternatives are scored as values from 1 to 10.

Feedback: A written summary lists for the manager item level data on both individual respondents and the entire group. A summary sheet of positive and negative subordinates' remarks is attached. A data matrix is also used to explore implications for change. The items are combined into three categories: technical skills, administrative skills and administrative skills.

RATE YOUR SUPERVISOR EVALUATION FORM (139:199-205)

Author: P.W. Maloney and J.R. Hinrichs

Source: Maloney & Hinrichs, 1959

Cost: Information is not available.

Date: 1959

Stated Purpose: The RYS is designed to provide a manager with the personalized guidance necessary for effective self-development.

Respondents: At least four subordinates of the subject manager.

Number of Items: 67

Time to Complete: 15 - 30 minutes

Scales:

- Personal traits
- Results
- Job methods
- Overall evaluation

Scoring: Percentage breakdowns are computed for each manager.

Feedback: A standard report presented to the manager includes:

- Distribution of subordinates' responses to each item
- Item distribution for all managers at the same level in the corporation and for all supervisors in his/her own division
- Paraphrase of written comments of subordinates

SUPERVISORY BEHAVIOR DESCRIPTION QUESTIONNAIRE (139:206-214)

Author: Edwin A. Fleishman

Source: Management Research Institute
8555 16th Street, Suite 603
Silver Spring, MD 20910

Cost: $9.50 per package (25 copies/package)
$3.50 per manual
$4.00 per scoring key

Date: 1953

Stated Purpose: The SBD was developed for use primarily in industry ... to describe in functional terms how the foreman, supervisor, or executive deals with people in his leadership role. Perceptions of a supervisor's actual on-the-job behavior are measured regarding the dimensions of Consideration and Structure.
The SBD has been used in leadership training programs, as a research instrument, in performance appraisal, for assessing managerial climate, as a predictor of supervisory effectiveness, and as a self-development aid.

Respondents: Manager, supervisor, peers and subordinates.

Number of Items: 48

Time to Complete: 15 to 20 minutes

Scales:

- Consideration
- Initiating structure

Scoring: Scale alternatives are assigned a value of 0 to 4. Items are added to produce scores; scores are averaged across subordinates. Scoring is done by hand using an answer key.

Feedback: The front page of the booklet contains a blank grid to display the respondent's Structure and Consideration scores, as well as scores from an appropriate norm group. Norms are provided in the manual.

STYLES OF LEADERSHIP AND LEADERSHIP APPRAISAL SURVEYS (139:215-223)

Author: Jay hall and Martha S. Williams

Source: Teleometrics International
P.O. Drawer 1850
Conroe, Texas 77301

Cost: $3.00 each

Date: SLS - 1968
LAS - 1971

Stated Purpose: To provide an index of the behavior of individuals as they function as leaders of groups and organizations.

Respondents: The LAS is completed by the subordinates; the SLS is filled out by the leader or manager.

Number of Items: 60 items

Time to Complete: 30 - 60 minutes

Scales:

- Philosophy of leadership
- Planning and goal setting
- Implementation
- Performance evaluation

Scoring: The test booklet contains a self-scoring matrix in which responses are arranged by categories and situations. Numerical scores, entered in keyed blanks, are added to yield indices of managerial style types. Raw scores are converted to standard scores. T-score equivalents are then entered into a series of graphs showing the normative range.

Feedback: The manager or leader plots his/her own scores on graphs. A shaded diagonal indicates the desirable pattern. The respondents can see whether their responses are stronger or weaker than desirable. Respondents receive a guide to help interpret the results.

SURVEY OF ORGANIZATIONS (139:224-236)

Author: Organizational Development Research Program
                  Center for Research on Utilization of Scientific Knowledge

Source: Organizational Development Research Program
                  Institute for Social Research
                  The University of Michigan
                  P.O. Box 1248
                  Ann Arbor, Michigan 48106

Cost: Variable rate schedule

Date: 1974

Stated Purpose: The questionnaire is designed to measure perceptions of organizational behavior rather than employee attitudes or morale. A major goal is organizational development based upon the ability to give feedback to every work group leader in the client system on those results of the survey which pertain to his own work group and area of responsibility.

Respondents: Employees at all levels and in all functions.

Number of Items: 124 core questions

Time to Complete: 20 - 90 minutes

Scales:

- Organizational Climate:
    - decision-making practices
    - Communication flow
    - Motivational conditions
    - Human resources primacy
    - Lower level influence
    - Technological readiness

- Supervisory Leadership:
    - Support
    - Support-ideal
    - Team building
    - Team building-ideal
    - Goal emphasis
    - Goal emphasis-ideal
    - Work facilitation
    - Work facilitation-ideal

- Supervisory Needs Indices:
    - Adequate information
    - Adequate values
    - Adequate skills

- Peer Leadership:
  - Support
  - Support-ideal
  - Team building
  - Team building-ideal
  - Goal emphasis
  - Goal emphasis-ideal
  - Work facilitation
  - Work facilitation-ideal

- Group Process Index

- Job Challenge Index

- Experienced Bureaucracy Index

- Aversion to Bureaucracy Index

- Goal Integration Index

- Satisfaction Index

Scoring: The questionnaire is machine-readable; responses can be fed immediately into an optical scanner. The questionnaire can also be hand scored.

Feedback: Separate tabulations are provided for each work group and for each higher level of responsibility within the organization. The printout includes percentage distribution, mean, and standard deviation. In addition to the printout, data displays that combine related indices may be prepared for supervisor/work group discussions. Data are compared with norm sets accumulated in the author's data bank. The norm matrix is broken down by hierarchical level and industrial/work group function.

SCIENCE RESEARCH ASSOCIATES ATTITUDE SURVEY (139:237-245)

Author: Robert K., Burns, L.L. Thurstone, David G. Moore and Melany E. Baehr

Source: Science Research Associates
259 E. Erie Street
Chicago, IL 60611

Cost: Variable rate schedule

Date: 1972

Stated Purpose: The purpose of the survey is to measure employee attitudes toward the work environment. Suggested uses for the instrument include: discovering job dissatisfaction, explaining low morale and absenteeism, evaluation of training needs, and determining effectiveness of communication.

Respondents: The manager.

Number of Items: 78 items

Time to Complete: 20 - 40 minutes

Scales:

- Job and Conditions of Work:
    - Job demands
    - Working conditions

- Financial Rewards:
    - Pay
    - Employee benefits

- Personal Relations:
    - Friendliness and cooperation of fellow employees
    - Supervisor-employee interpersonal relations
    - Confidence in management

- Operating Efficiency:
    - Technical competence of supervision
    - Effectiveness of administration
    - Adequacy of communication

- Individual Satisfactions:
    - Security of job and work relations
    - Status and recognition
    - Identification with the company
    - Opportunity for growth and advancement

- Reactions to the Inventory:
    - Employee opinion of the survey

<u>Scoring:</u> The completed surveys are scored by SRA. Responses to each item are computed for the group.

<u>Feedback:</u>   SRA provides "Core Charts" to the management of the client organization. The charts show "percentage favorable" responses for the group and subgroup at the item level; these responses are plotted on a percentile, or norm scale, for comparison with other norm groups. The median of favorable-response scores is indicated by category for both the group and subgroup. An interpretation guide is provided.

Management is instructed to use results to determine morale level, and the effect of status differences on morale level, and to determine "specific strong and weak points."

Feedback to employees can be handled in a variety of ways. The summary report may be published in company communications media, selected segments may be shared with employees, or a short synopsis may be prepared for employees. Summarized results may be communicated through employee publications, bulletin board notices, or departmental meetings.

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